DOCUMENT RESUME

ED 035 497 RC 004 002

AUTHOR	Hassinger, Edward W.
TITLE	Background and Community Orientation of Rural Physicians Compared with Metropolitan Physicians in Missouri. Series in Rural Health, No. 19.
INSTITUTION	Missouri Univ., Columbia. Coll. of Agriculture.
REPORT NO	R-Bull-822
PUB DATE	Aug 63
NOTE	64p.
EDRS PRICE	EDRS Price MF-$0.50 HC-$3.30
DESCRIPTORS	Community Role, *Educational Background, *Family Background, Interviews, Medical Schools, *Occupational Mobility, *Physicians, Rural Population, *Rural Urban Differences, Social Status, Statistical Data
IDENTIFIERS	*Missouri

ABSTRACT

Backgrounds of rural medical doctors were compared with those of osteopathic doctors, metropolitan medical doctors in general practice, and metropolitan doctors in specialties in order to establish factors contributing to the unbalanced distribution of physicians in society. Interview data were obtained from all physicians in a 20-county rural area and from a sample of physicians in a metropolitan center. Two major background factors were studied: (1) family occupational background and (2) location of physician at selected points in his life. All doctors, regardless of resident-type, tended to have fathers in upper-status occupations, with the exception that more metropolitan specialists were recruited from lower status occupational backgrounds than other resident-types. During their youth, rural medical and osteopathic doctors had predominantly rural backgrounds; metropolitan doctors came from urban areas. Low mobility existed among all physicians, with highest mobility among osteopathic doctors and lowest among metropolitan specialists. Rural physicians were more involved in community life than metropolitan doctors, and there was very little difference between community involvement of medical doctors and osteopathic doctors. Due to more hospitals and increased technology in rural areas, the rural and urban medical practices have begun to show greater similarities. (AN)

ED035497

RESEARCH BULLETIN 822 AUGUST, 1963
UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE
AGRICULTURAL EXPERIMENT STATION
ELMER R. KIEHL, *Director*

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Background and Community Orientation of Rural Physicians Compared with Metropolitan Physicians In Missouri

EDWARD W. HASSINGER

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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SERIES IN RURAL HEALTH, NO. 19

(Publication authorized August 8, 1963)

COLUMBIA, MISSOURI

RC004002

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ACKNOWLEDGEMENT

The writer gratefully acknowledges the assistance of the following people in preparing this report: John Bennett, Ellis Plyler, and Perry Thompson for interviewing; Patsy Keith and Jean Hofmann for preparation and analysis of data; Mary Campbell for data processing and manuscript preparation.

In addition, I wish to express my appreciation to the members of the medical and osteopathic professions for advice on approach and assistance in establishing rapport. Finally, I want to thank the physicians who took time from their busy schedules to participate in this study.

The bulletin is a report on Department of Rural Sociology research project 201, "Cultural Factors Affecting Illness."

Background and Community Orientation of Rural Physicians Compared With Metropolitan Physicians In Missouri

EDWARD W. HASSINGER

CHAPTER I
INTRODUCTION

The Study

A Report of a consultant group on medical education appointed by the Surgeon General emphasized the shortage of physicians in a nation of increasing population.[1] The problem is not only one of absolute numbers, but of distribution. For a long time it has been recognized that rural areas have had a lower physician: population ratio than urban areas. This difference has increased in recent years.

Central in the concentration of physicians in larger centers is the change in medical technology and the consequent change in the medical plant. No longer is the "little black bag" sufficient to carry the tools of the trade. It may be surprising in view of changes in the profession and the high demand for physicians resulting from their short supply that any choose to practice in rural areas. Part of the explanation, of course, is that rural areas are not so "rural" any more and that the technology of the profession is available outside the larger cities. But there may be some equally compelling reasons, related to personal background, which affect the distribution of physicians.

This study attempted to learn more about the background and community participation of physicians who chose to practice in non-metropolitan areas. An underlying assumption was that decisions to practice in rural areas were somehow related to past experience. A major focus of the analysis is to identify the background factors which operate in the choice of non-metropolitan areas as places of practice.

In converting "past experience" to researchable dimensions, two main topics were considered: family occupational background and the place history of physicians. The first topic deals with the occupation of fathers of the physicians and fathers of the physicians' spouses. Particular attention was paid to direct transmission of medical professions from father to son. The place history consists of the location of the physician at selected points in his life (birth, when started school, when finished 8th grade, when finished high school, undergraduate college, medical school, internship, first practice, and present practice). Location was described in relation to the present place of practice (same place, same state, adjacent state, non-adjacent state), and size of place.

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[1] Report of the Surgeon General's Consultant Group on Medical Education, Frank Bane, Chairman, Physicians for a Growing America, P.H.S. Publication No. 709, Oct. 1959.

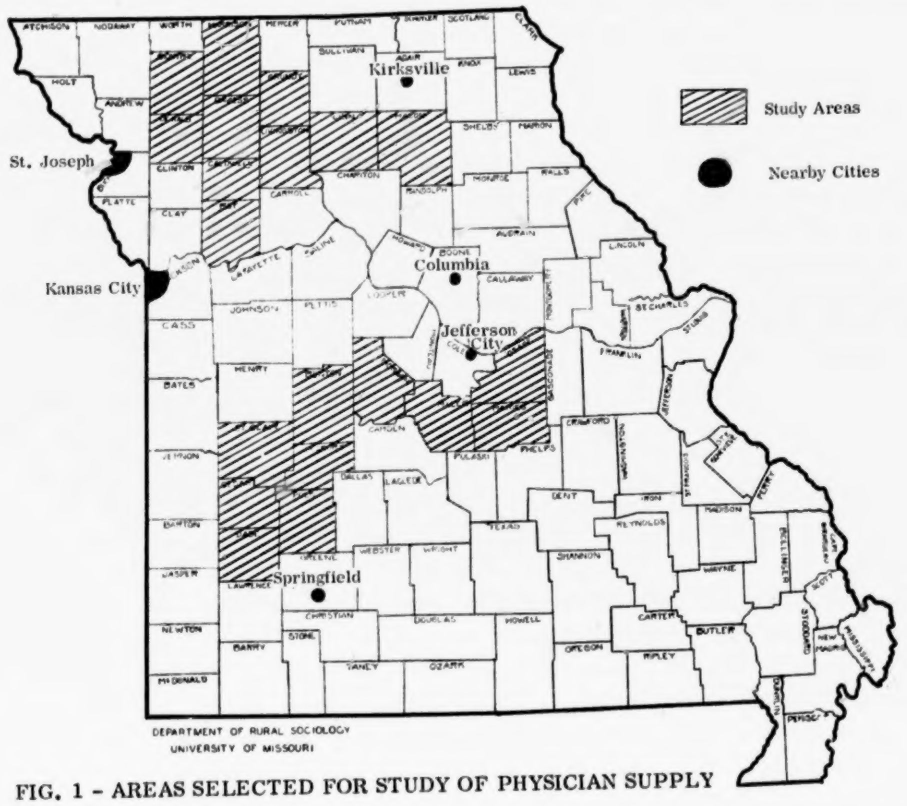
A second and complementary focus of the study is the relationship of physicians to the community in which they practice. For example, are rural physicians a mobile group? Are their social contacts mainly with other physicians? Do they participate in local affairs? What is a rural practice like? These questions have a bearing on the stability of the physician population in the area.

The pivotal point of the analysis is the rural medical doctors. They are compared with 3 other segments of the medical profession; namely, rural osteopathic doctors, metropolitan medical doctors in general practice, and metropolitan medical doctors in specialities. These categories are referred to from time to time as resident-types of physicians.

Method

Data were obtained from personal interviews with physicians in a 20-county nonmetropolitan area and from physicians in a metropolitan center.

The Nonmetropolitan Area. The nonmetropolitan area consisted of 20 counties in the state; it included 10 contiguous counties north of the Missouri River and 10 contiguous counties south of the River (Figure 1). The northern counties had a higher economic level and were more densely populated than the southern counties. The population in the area had declined over the last four decades which is characteristic of essentially rural areas. Three of the 4 rural social areas of the state are represented by these counties.[2] There were no centers as large as 10,000 population,



DEPARTMENT OF RURAL SOCIOLOGY
UNIVERSITY OF MISSOURI

FIG. 1 - AREAS SELECTED FOR STUDY OF PHYSICIAN SUPPLY

but 10 places were urban by census definition (2,500 or over). Physicians, even in the larger places, however, regarded themselves as rural doctors. In order to avoid the awkward term, nonmetropolitan physician, we shall refer to the area as a rural area and the physicians in it as rural physicians.

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[2] Cecil L. Gregory, Rural Social Areas of Missouri, University of Missouri A.E.S. Research Bulletin 665, April 1958, p. 12.

The universe of physicians was those doctors in private practice (part-time or full-time) in the 20 county area. It was decided to interview all the physicians in the area; this included medical doctors and osteopathic doctors.

A list of names and locations of physicians in the rural area was available from a previous census of physicians made in 1958. This list was supplemented by the latest directories of the American Medical Association and the American Osteopathic Association. Interviewers were instructed to check in each county for recent changes.

The rural physicians whose names were available were called from the University of Missouri in order to introduce the study and to make an appointment for an interview. The calls also revealed situations where a physician was no longer in the community. Interview appointments were set up a week in advance. The largest proportion of the rural interviews were conducted by one person; although three others, including the writer, participated in the field work. One of the delightful things about this study was the cooperation of the physicians. They took time from their busy schedules with, in most cases, great courtesy and many seemed genuinely interested in the exploration of these matters. Among the 157 rural doctors only 3 refusals were encountered; 3 others were not interviewed for other reasons.

The Metropolitan Area. In the metropolitan area, two samples of medical doctors were selected: Active medical doctors in general practice[3] and full-time specialists. The metropolitan general practitioners were selected to correspond in age structure to the rural medical doctors. The specialists were selected to be age-representative of the specialists in the city. In both cases random methods of selection were used.

The interviews of metropolitan physicians took place approximately one year after (summer 1962) the rural interviews. One person conducted all of these interviews. As with rural physicians, the doctors in the metropolitan center were for the most part very cooperative. Among the general practitioners in the metropolitan center 3 refusals were encountered; among specialists there were 5 refusals.

The Interview. A printed schedule served as the basis for the interviews. It was identical for rural medical and osteopathic doctors and was slightly modified to fit the situation of the metropolitan physicians. The interview, which lasted about 45 minutes, was usually conducted in the physician's office; although, some took place in hospitals and homes. (The interview schedule appears in Appendix B).

The Comparisons Made and the Presentation of Data. Four distinct resident-type groupings of physicians were considered -- rural medical doctors, rural osteopathic doctors, metropolitan general practitioners, and metropolitan specialists. Data are presented in strictly parallel form for types of physicians. Although this may lead to some tedium for the reader, it facilitates the task of comparison. Because all physicians in the 20 counties were interviewed, differences between medical doctors and osteopathic doctors were not due to sampling. In this sense tests of significance were not appropriate. But if these physicians are regarded as samples from larger hypothetical populations, then tests of significance have meaning. This is the rationale for using a sampling statistic (chi square) in the comparison of resident-types of physicians.

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[3] Listed in the American Medical Association Directory as in general practice or part-time specialty.

The principal control variable used throughout the analysis is age of the physician. Age may be related to such things as locational and family background, community participation, professional training, and professional activity. Size of place of practice is also used as a control variable when medical and osteopathic physicians are compared within the 20-county area. Size of place is, of course, a major independent variable when metropolitan and rural physicians are compared. It should be remembered that, to a large extent, the 4 samples are "self-controlling" in that among physicians there is a considerable homogeneity in education, income, status, and sex. Furthermore, three of the samples were predominately general practitioners.

Distribution of Physicians

Although totaling only about one-quarter million, physicians represent one of the most visible occupational categories in the nation. To "locate" the physicians in the 20-county area within the total profession, attention is given to the organization and distribution of the medical profession. Emile Durkheim developed the thesis that likeness of kind yields a mechanical solidarity; on the other hand, division of labor has a corresponding organic solidarity characterized by a differentiated and integrated social structure. His formulation of mechanical and organic solidarity seems to correspond at some points to the medical profession past and present.

Consider the medical profession as developing greater specialization and apply Durkheim's formulation. The social structure which mechanical solidarity produces "is a system of segments homogeneous and similar to each other." On the other hand, "quite different is the structure of societies where organic solidarity is preponderant.

"They are constituted, not by a repetition of similar, homogeneous segments, but by a system of different organs each of which has a special role, and which are themselves formed of differentiated parts. ...They are not juxtaposed linearly as the rings of an earthworm, not entwined one with another, but co-ordinated and subordinated one to another around some central organ which exercises a moderating action over the rest of the organism."[4]

At an earlier time, doctors were more evenly distributed over the landscape. It was necessary for the physician to be close to the home of his patient not only because transportation was difficult, but because the bed of illness was in the home.

The "old doctor" was like every other doctor; perhaps more or less competent and possibly possessing special cures, but surely a general practitioner of the "art" of medicine. The relationship between doctor and patient was highly personalized and confidence was placed in the individual practitioner rather than the profession as a whole. Every doctor was in direct competition with every other doctor because they performed about the same service. The division of clientele was on a spatial rather than a vertical basis.

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[4] Emile Durkheim, The Division of Labor in Society (translated by George Simpson) The Free Press, Glencoe, Illinois, 1947, p. 181.

There may have been a time when physicians were functionally equal, but not now. Because of the vast knowledge available in medical science, numerous specialities have developed.[5] While specialization is the mark of modern medicine, differentiation on the basis of specialities is not at all the same as the older differentiation on the basis of cults or special cures. It is within the profession with professional control and sanction. The general practitioner finds his niche within this system. His special province is the treatment of more common conditions and referral to proper specialists.

The purpose here is to consider the profession as a whole and to indicate where the physicians in the 20 counties fit into it.

In the nation in 1957 there were 226,625 medical doctors and 13,692 osteopathic doctors. Almost 70 percent of each group was in private practice:[6]

	Medical Doctors		Osteopathic Doctors	
	No.	Percent	No.	Percent
Total	226,625	100.1	13,692	100.0
Private Practice	155 827	68.8	9,501	69.4
Not in Private Practice	60,137	26.6	1,205	8.8
Retired, Not in Practice	10,661	4.7	2,986*	21.8

*Includes 2,006 osteopathic physicians who did not report type of practice.

The concentration of specialists in metropolitan areas was pronounced,[7] and physicians in nonmetropolitan areas were over-represented in the older age categories.[8]

The Missouri proportions of physicians in private practice closely reflect national figures.[9]

	Medical Doctors		Osteopathic Doctors	
	No.	Percent	No.	Percent
Total	4,979	100.0	1,150	99.9
Private Practice	3,485	70.0	779	67.7
Not in Private Practice	1,234	24.8	169	14.7
Retired, Not in Practice	260	5.2	202*	17.5

*Includes 66 osteopathic physicians who did not report type of practice.

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[5] The 1961 AMA Directory lists 37 medical specialties.

[6] Data from Physicians for a Growing America, Report of the Surgeon General's Consultant Group on Medical Education, P.H.S. Publication No. 709, Oct. 1959, p. 10.

[7] Health Manpower Source Book, Section 10, P.H.S. Publ. No. 263, p. 13.

[8] Ibid. p. 29.

[9] Tabulated from 1961 Directory of the American Medical Association
1962 Directory of the American Osteopathic Association.

The state ranks fourth in the number of osteopathic physicians and first in the number per 1000 persons. This is understandable in that Kirksville, Mo., is the "home" of osteopathy where about 70 years ago Andrew T. Still started the first school and today, two of the 5 accredited colleges of osteopathy are located in the state.[10]

In Missouri, three-fourths of the medical doctors (1961) and two-fifths of the osteopathic doctors (1962) practice in metropolitan areas. When medical doctors and osteopathic doctors are compared by size of place of practice, it is clear the osteopathic doctors are more likely to be found in smaller places (Table 1.1). Almost half of the total osteopaths can be found in places under 10,000 in population; whereas, only 15 percent of the state's medical doctors are in places this size.

TABLE 1.1 - PHYSICIANS IN PRIVATE PRACTICE IN MISSOURI BY SIZE OF PLACE

	Medical Doctors		Osteopathic Doctors	
Size of Place	No.	Percent	No.	Percent
-500	38	1.1	61	7.8
500 - 999	36	1.0	67	8.6
1,000 - 2,499	153	4.4	116	14.9
2,500 - 4,999	142	4.1	78	10.0
5,000 - 9,999	156	4.5	60	7.7
10,000 - 49,999	335	9.6	81	10.4
Metropolitan Areas	2622	75.2	314	40.3
Population not Given	3	0.1	2	.3
Total	3485	100.0	779	100.0

About one-third of the medical doctors in private practice reported no specialty (either part-time or full-time). Although the osteopathic profession has developed specialties that closely parallel those of the medical profession, the development is fairly recent and about 3/4 of the osteopaths in the state reported no specialization in their practice.[11] Table 1.2 shows that among medical doctors most of the specialists (full-time and part-time) are found in metropolitan areas of the state; while the concentration of osteopathic physicians with specialities is not so clearly in the largest places.

Table 1.3 indicates that older men represent a substantial part of the medical doctors in places with less than 2,500 population. The same pattern does not hold for osteopathic doctors.

It is contended that osteopathic doctors are not a separate profession but fit into the division of labor as general practitioners. But it is also apparent from their distribution (and this is even clearer when we examine the locations within the 20 counties) that many of them practice in places in which medical doctors would be unlikely to locate. A process of succession seems to be working in the distribution

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[10] Locations of accredited colleges of osteopathy are: Chicago, Des Moines, Kansas City. Kirksville, Philadelphia. The former College of Osteopathic Physicians and Surgeons (Los Angeles) has recently been accredited as a medical school.

[11] Those who confined their practice to manipulation were counted as general practitioners.

TABLE 1.2 - PHYSICIANS IN PRIVATE PRACTICE IN MISSOURI BY SIZE OF PLACE AND TYPE OF PRACTICE

	Medical Doctors				Osteopathic Doctors			
	Specialty*		Gen. Pract.		Specialty*		Gen. Pract.	
Size of Place	No.	Percent	No.	Percent	No.	Percent	No.	Percent
-500	4	0.2	34	3.0	10	5.1	51	8.8
500 - 999	4	0.2	32	2.9	8	4.0	59	10.2
1,000 - 2,499	23	1.0	130	11.6	21	10.6	95	16.4
2,500 - 4,999	35	1.5	107	9.5	15	7.6	63	10.8
5,000 - 9,999	53	2.2	103	9.2	21	10.6	39	6.7
10,000 - 49,999	229	9.7	106	9.5	28	14.1	53	9.1
Metropolitan Areas	2016	85.3	606	54.1	95	48.0	219	37.7
Population not Given	--	--	3	0.3	--	--	2	0.3
Total	2346	100.0	1121	100.1	198	100.0	581	100.0

*Includes part-time and full-time specialty.

TABLE 1.3 - PROPORTION OF THE PRACTICING PHYSICIANS WHO ARE 65 YEARS OR OVER BY SIZE OF PLACE

	Medical Doctors		Osteopathic Doctors	
Size of Place	No. 65 or Over	Percent of all Medical Doctors in That Size Place	No. 65 or Over	Percent of all Osteopathic Doctors in That Size Place
-500	24	63.1	2	3.2
500 - 999	13	36.1	3	4.5
1,000 - 2,499	45	29.4	14	12.0
2,500 - 4,999	25	17.6	9	11.5
5,000 - 9,999	25	16.0	6	10.0
10,000 - 49,999	43	12.9	19	23.4
50,000 - or more	505	19.2	40	12.8
Population not Given	3	---	--	--

of physicians in which osteopathic doctors are taking over areas abandoned by medical doctors.

Distribution in the 20 Counties. If the figures for the state and nation hold for the 20-county area, we should expect the doctors in this area to be relatively unspecialized. Among the medical doctors there should be a concentration in the older ages, but this would not be true for osteopathic doctors. Even though osteopathic doctors were a minor part of the physicians in the nation and in the state were outnumbered by medical doctors by more than 4 to 1, in more rural areas we would expect this ratio to diminish.

On all of these points the physicians in the 20 counties corresponded to expectations gained from state and national data. The physicians, both medical and osteopathic, were predominately in general practice. Eighty percent of the medical doctors and 73 percent of the osteopathic doctors reported no specialization in their practice. Even those, especially among medical doctors, who reported a specialty were often in the process of reducing their practice. It was not uncommon for an older physician to restrict his practice to eyes, ears, nose and throat. Also, the physicians in the area conformed on age to the expectations derived from state figures (Table 1.4). One in 4 of the medical doctors was 65 or older; 1 in 5 was 70 years or over. A considerably smaller proportion of the osteopathic physicians were 65 or over.

TABLE 1.4 - AGE OF PHYSICIANS IN PRIVATE PRACTICE IN THE 20-COUNTY AREA

	Medical Doctors		Osteopathic Doctors	
Age	No.	Percent	No.	Percent
Under 30	3	4.2	3	3.7
30 - 44	25	35.2	27	33.8
45 - 54	12	16.9	23	28.8
55 - 64	13	18.3	18	22.5
65 - 69	4	5.6	6	7.5
70 and Over	14	19.7	3	3.7
Total	71	99.9	80	100.0

The usefulness of such correspondence to expectation is not that we have been able to predict the characteristics of the physicians in the study area; rather it is that on these factors the physicians are representative of the ecological segment from which they were drawn. This being so, more confidence may be placed in extending the data beyond the bounds of delineated area to other rural areas.

CHAPTER II

Location of Physicians

At one time, to serve his clientele, the physician had to be immediately at hand. Roads and communication were poor and the bed of illness was in the home where the doctor attended. Under such conditions, physicians would be distributed much as the population was and even the smallest town might be expected to have a doctor. But times have changed, and the location of services of all kinds has adjusted to the changes in transportation, communication, and personal demand. Such changes, for example, threaten the very existence of many small trade centers. In addition, for the physician, the development of technology in medicine has altered his relationship to the patient. A complex set of diagnostic and treatment apparatus that requires the office, clinic, or hospital location is needed to practice modern medicine. In many cases, physicians have combined their talents in group practice. Then, they may attach several aides and assistants from receptionist to business manager. And the home call is no longer common. The physician is more efficient if he stays at his work station and the bed of illness is no longer in the home but in the hospital.

Location of Medical Doctors in the Area. These changes are reflected in the location of medical doctors within the area. Previous research in the same 20 counties had shown that there was a trend away from the smaller places to the larger ones within the area.[12] What is happening is that medical doctors moving in do not locate in the smaller places; and these smaller places lose physicians as the doctors located there end their careers.

One way of describing the location of practicing medical doctors is to compare the proportion of the doctors in each size category of centers with the proportion of the population that is found in these centers. The comparison for the 20 counties is shown in Table 2.1.

TABLE 2.1 - SIZE OF PLACE AND LOCATION OF RURAL MEDICAL DOCTORS

Size of Place	Percent of Population of Incorporated Places Located in Each Size Category	Percent of Medical Doctors Located in Each Size Category	Number of Places This Size in the 20 Countries
-500	21.7	5.6	92
500 - 999	13.8	9.8	18
1,000 - 2,499	17.7	26.8	13
2,500 - 4,999	25.0	32.4	7
5,000 - 10,000*	21.8	25.4	3

*Upper limit 9,236

In the area, incorporated centers ranged from less than 50 to almost 10,000 in population. Medical doctors were unlikely to be in centers of fewer than 500 people, although this size of place accounted for 22 percent of the population living in incorporated centers. Medical doctors were also under-represented in places of 500 to 999 population. In the other size categories, the proportion of medical doctors was over-represented when compared with the proportion of the total population.

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[12] Edward Hassinger and Robert L. McNamara, What's Happening to Rural Doctors and Health Facilities? University of Missouri A.E.S. Bulletin 735, July 1959, pp. 5-6.

This is the observation often made that medical doctors are not concentrated as the population is concentrated. It may be somewhat surprising to find a fairly high proportion of the medical doctors in places as small as 1,000 to 2,500 population.

This table shows that 57.8 percent of the practicing medical doctors were located in the 10 largest centers in the area and that 74.6 percent were located in the 23 largest centers.

Younger medical doctors were unlikely to be practicing in smaller places. None under 55 years of age were located in a place with as little as 500 population. The younger physicians were also less likely to be practicing in the largest centers.

Location of Osteopathic Doctors in the Area. The same transportation and communication situation existed for osteopathic doctors as for medical doctors but their reaction to it was not the same. One probable reason is that osteopathic physicians are not associated as closely with hospital practice as medical doctors are. The distribution of osteopathic physicians corresponded quite closely to the population distribution of incorporated places. They tended to be somewhat over-represented in the small places and under-represented in the larger places. About 40 percent were located in the 10 largest centers and 60 percent were in the 23 largest centers. The remaining 40 percent were in the centers under 1000 in population, which accounted for 35 percent of the incorporated population of the area.

The youngest osteopathic physicians were most likely to be in the smallest places -- 1/3 of those under 45 years of age were in places under 500 population and an additional 23 percent were in places between 500 and 1000. The older osteopathic doctors tended to be located in larger places (Table 2.3).

Comparison of the Location of Medical Doctors with that of Osteopathic Doctors. The locations of medical doctors and osteopathic doctors are compared in Figure 2.1. The figure shows clearly that a larger proportion of the osteopathic doctors were located in the smaller centers of the area. A chi square (X^2) test showed the difference was significant at the 5% level.[13]

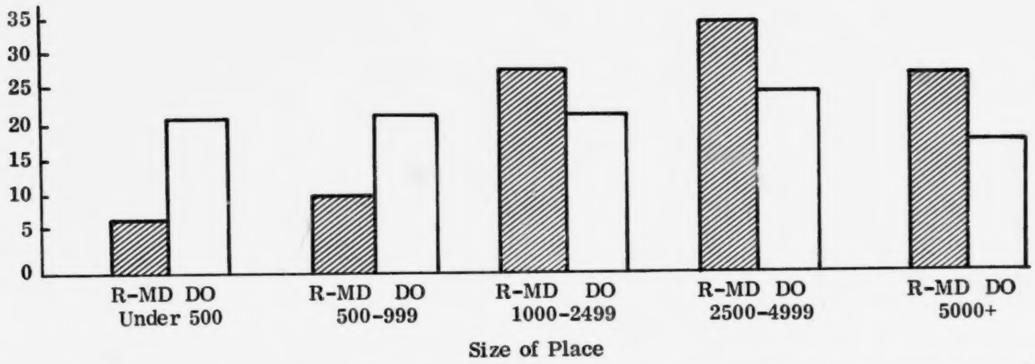

Fig. 2.1 - Proportion of Rural Medical Doctors (R-MD) and Osteopathic Doctors (DO) Located According to Size of Place.

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[13] $X^2 = 11.2$; d.f.$_{14}$=3 -- size categories -1,000, 1,000-2,499, 2,500-4,999,5,000-9,999.

TABLE 2.2 - SIZE OF PLACE AND LOCATION OF OSTEOPATHIC DOCTORS

Size of Place	Percent of Population of Incorporated Places Located in Each Size Category	Percent of Osteopathic Doctors Located in Each Size Category	Number of Places This Size in the 20 Countries
-500	21.7	20.0	92
500 - 999	13.8	20.0	18
1,000 - 2,499	17.7	20.0	13
2,500 - 4,999	25.0	23.8	7
5,000 - 10,000*	21.8	16.3	3

*Upper limit 9,236.

TABLE 2.3 - SIZE OF PRESENT PLACE OF PRACTICE BY AGE OF RURAL MEDICAL DOCTORS AND OSTEOPATHIC DOCTORS

Size of Present Location	Percent Under 45		Percent 45 - 54		Percent 55 - 64		Percent 65 and Over	
	R-MD	DO	R-MD	DO	R-MD	DO	R-MD	DO
	(N=28)	(N=30)	(N=12)	(N=23)	(N=13)	(N=18)	(N=18)	(N=9)
Under 500	---	33.3	---	17.4	15.4	5.6	11.1	11.1
500 - 999	10.7	23.3	8.3	30.4	15.4	5.6	5.6	11.1
1,000 - 2,499	28.6	10.0	33.3	26.1	15.4	33.3	27.8	11.1
2,500 - 4,999	46.4	16.7	33.3	17.4	23.1	33.3	16.7	44.4
5,000 and Over*	14.3	16.7	25.0	8.7	30.7	22.2	38.9	22.2
Total	100.0	100.0	99.9	100.0	100.0	100.0	100.1	99.9

*Upper limit 9,236.

Another distinction that appeared important when comparing the location of medical doctors and osteopathic doctors was that young osteopathic doctors were likely to be located in places as small as 1,000 population while young medical doctors were not. The difference in size of present location (under 2,500 or 2,500 and over) was significant at the 1 percent level; $X^2 = 8.3$; d.f. = 1, for physicians under 55 years of age. On the other hand, difference in the size of location for the two types of physicians was not significant for physicians 55 or older; $X^2 = 0.1$, d.f. = 1.

The conclusion must be that more young osteopathic doctors than medical doctors see in the small place (under 1,000 population) an attractive opportunity for practice.

Further, compared with medical doctors, osteopathic doctors must find this 20-county area attractive as a place of practice because, although medical doctors outnumber osteopathic doctors in the state more than 4 to 1, in the study area there were more osteopathic doctors than medical doctors.

If osteopathic physicians are to be considered in the scheme of the larger medical profession it seems as if their place is in general practice and in the smaller places. The Kirksville school has emphasized rural practice in its training and it is conceivable that the osteopathic physicians may have more rural background, which is part of the consideration in the following chapters.

CHAPTER III

Family Background of Physicians

Occupational backgrounds of physicians are considered in this section. Occupation is often regarded as an index of status. Since physicians are in one of the highest ranking occupations in the United States, any inter-generation mobility would be in one direction. One of the questions dealt with is whether there are differences in occupational background by residence-type of physicians.

In this section the occupations of the physicians' fathers are considered and also the occupations of the fathers of physicians' spouses.

Occupations of fathers were classified according to the U.S. Census code; the categories form a rough occupational hierarchy. In terms of ordering, professional; semi-professional; proprietors, managers and officials; and clerical and sales workers are often grouped as white collar workers; and craftsmen, operatives, service workers, and laborers are classified as blue collar workers. In this narrative, the clerical and sales work category will sometimes be referred to as lower status white collar occupations. In this sense, farmers present a problem of location in that the category covers an extremely wide range of occupational situations from large-scale commercial farms to subsistence enterprises; therefore, farmers and farm managers are considered outside of any hierarchical arrangement of occupations in this discussion.

Rural Medical Doctors

Fathers' Occupations of Rural Medical Doctors. About one-third of the practicing medical doctors reported that their fathers were professional men, about one-fifth were proprietors or managers, and a few were clerical or sales workers. Therefore, more than half of the fathers were white-collar workers and most of them were from the higher status white collar occupations.

Blue-collar occupations accounted for a minor proportion of occupations of fathers of medical doctors.

A sizable proportion of the practicing medical doctors in the area were sons of farmers. In fact, this was the largest single occupation represented.[14]

The direct inheritance of the medical profession may be noted by inquiring into the number of fathers who were themselves in medically related professions. Those in medical professions accounted for 19 of the 22 professional fathers -- this was 27 percent of all fathers. Of those in medical fields; 13 were medical doctors, three were pharmacists, two dentists, and one veterinarian.

Fathers' Occupations by Age of Medical Doctor. In considering the occupations of fathers, age of the physician is important; the ages of these physicians span a half-century during which time the occupational structure of the nation has changed markedly and presumably occupational mobility has also changed.

The most apparent change that can be observed in Appendix Table 3.1 is that more than half of the oldest physicians were sons of farmers while other age categories showed smaller proportions of farmers' sons. Something like this would be

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[14] The term "sons" is used for convenience in spite of the fact that several physicians were women.

TABLE 3.1 - OCCUPATION OF FATHERS OF RURAL MEDICAL DOCTORS

Occupation	Number	Percent
Professional and Semi-professional	22	31.0
Farmer and Farm Manager	24	33.8
Proprietors, Managers and Officials	15	21.1
Clerical and Sales	3	4.2
Craftsmen and Foremen	2	2.8
Operatives	4	5.6
Service Workers	1	1.4
Laborers (farm and non-farm)	---	---

expected if only the changes in the occupational structure that result from the decreasing number employed in agriculture were taken into account. However, a larger proportion of the physicians under 45 years of age than of those in the 45-54 age group and an almost equal proportion to those in the 55-64 group were sons of farmers. A plausible explanation for the relatively large number of sons of farmers in the youngest age category is that they were making career choices in a time of relative farm prosperity.

Professional fathers were represented heavily and almost equally among all age categories. Proprietors and managers were represented in substantial proportions in all age categories with the exception of the oldest. Only younger medical doctors (under 55) were sons of clerical and sales workers (Appendix Table 3.1).

Older medical doctors were more likely to be sons of medical doctors than were young doctors, but not as likely to have fathers in other medically-related professions (Appendix Table 3.3).

Fathers' Occupations and Size of Place of Practicing Medical Doctors. Medical doctors practicing in larger places were more likely to be sons of professional men than those practicing in small places. In places of 2,500 or larger about two-fifths of the practicing physicians were sons of professional or semi-professional men. Practicing medical doctors who were sons of professional men were least common in places of less than 1000 population, accounting for only 9 percent. In this size of place, 64 percent were sons of farmers. Places with 2,500 to 4,999 had the smallest percentage of sons of farmers (13 percent). The percentage of sons of proprietors and managers was largest in the size categories 1000 to 2500 and 2500 to 5000, amounting to just over 30 percent in each (Appendix Table 3.2).

Background of Spouse. Compared with fathers of practicing medical doctors, the fathers of their spouses were less likely to be professional men. None of them were either physicians or in allied medical professions. The spouses' fathers were represented in the farm operator and proprietor and manager categories in about the same proportions as the fathers of the doctors. They were more numerous in the craftsmen, operative, service worker, and laborer categories. The occupational background of spouses of medical doctors practicing in this area does not connect them closely with the medical profession. Sixty-eight percent of the spouses had a rural background.

Rural Osteopathic Doctors

Fathers' Occupations of Osteopathic Doctors. The fathers of about one-fifth of the osteopathic physicians were professional men.[15] A like number were sons of proprietors or managers and 8 percent were sons of clerical or sales workers. Thus 45 percent were sons of white collar workers. About 18 percent were sons of blue-collar workers.

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[15] Including 1 semi-professional.

Almost 2 in 5 of the osteopathic doctors practicing in the area were sons of farmers. This occupational category contributed a higher proportion than any other. Of the 15 fathers in the professional category, 9 were physicians. Our data do not permit us to determine whether the fathers were osteopathic doctors or medical doctors. Only one of the fathers was in an allied health profession.

TABLE 3.2 - OCCUPATION OF FATHERS OF OSTEOPATHIC DOCTORS

Occupation	Number*	Percent
Professional and Semi-professional	15	19.0
Farmers and Farm Manager	30	38.0
Proprietors, Managers and Officials	14	17.7
Clerical and Sales	6	7.6
Craftsmen and Foremen	6	7.6
Operatives	4	5.1
Service Workers	2	2.5
Laborers (farm and non-farm)	2	2.5

*One did not specify occupation of father.

Fathers' Occupations by Age of Osteopathic Doctor. There were only 9 osteopathic physicians in the study area 65 years of age or older. To some extent this reflects the youth of the discipline itself; for formal instruction in osteopathy was started in 1892 with 17 students.

Almost two-thirds of the osteopathic physicians over 55 years of age were sons of farmers; under 55 years, the proportion was about 1 in 4. The percentage who were sons of professional men varied from 6 percent for those from 55-64 years of age to 30 percent for those 45-54.

It seems noteworthy that the fathers of the youngest osteopathic physicians had the most varied occupational background with a substantial proportion in blue-collar occupations (Appendix Table 3.4). Osteopathic physicians in the age category 45-54 were most likely to be sons of physicians. As mentioned before, the data do not permit us to determine whether these were osteopathic physicians or not. One would expect that there would be few osteopathic fathers of the oldest practicing osteopathic physicians because of recent origin of the profession. (Appendix Table 3.6).

Fathers' Occupations and Size of Place of Practicing Osteopathic Doctors. Osteopathic physicians practicing in places of 1000-2499 were more likely to be sons of professional or semi-professional men than those in any other size category (37.5 percent); those in places under 1000 were least likely to be sons of professional workers (6.2 percent). The sons of farmers were quite evenly represented in each size category ranging from 31.2 percent in places of 1000-2499 to 46.2 percent in places with more than 5,000 population. Interestingly, those in the smallest places had the most varied occupational base. Their fathers were represented in every occupational category.

Fathers' Occupations of Spouses of Osteopathic Doctors. The fathers of spouses of practicing osteopathic physicians were less likely to be in the professions than were the fathers of the osteopathic physicians. Three of the spouses had physician fathers. The most common occupation was farmer, followed by proprietors and managers. Sixty-five percent of the spouses were reported to have a rural background.

Comparison of Family Background of Rural Medical Doctors and Rural Osteopathic Doctors

Figure 3.1 compares the occupational background of medical doctors and osteopathic physicians. There is a general similarity in the occupations of fathers of the two types of physicians. In both cases, the majority of the fathers could be classified as professional, proprietors and managers, or farmers. Few fathers were in clerical and sales or any of the blue collar occupations. A larger proportion of the medical doctors than of the osteopathic doctors had professional fathers. When tested for significance by aX^2 test, the two groups did not show a significant difference in occupational background nor was the difference significant when the same test was made with age controlled at under 55 and 55 and over, and size controlled at under 2,500 and 2,500 and over.[16]

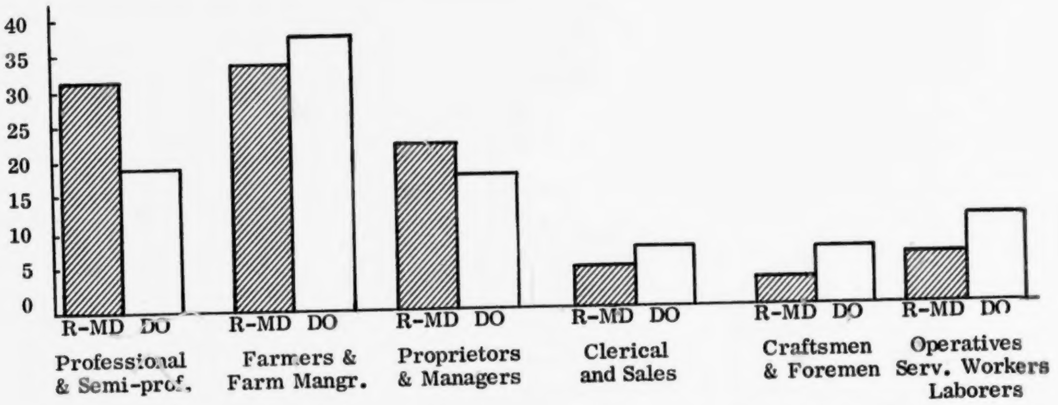

Fig. 3.1 - Occupation of Fathers of Rural Medical Doctors (R-MD) and Rural Osteopathic Doctors (DO).

When direct inheritance of occupation was considered, it was found that medical doctors were more likely than osteopathic doctors to be sons of men in medically connected professions. The difference was significant. When younger and older physicians were considered separately it was found that the relationship held for older physicians but not for those 55 years or younger.

A comparison of the occupation of fathers of spouses of medical doctors and of osteopathic doctors is shown in Figure 3.2. The correspondence between the two types of physicians is quite close. In neither case is there a heavy concentration of professional fathers, and the spouses of both medical doctors and osteopathic doctors were more likely to have fathers in the farmer occupation than in any other. The difference was not statistically significant.

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[16] For these and subsequent X^2 values see page 22.

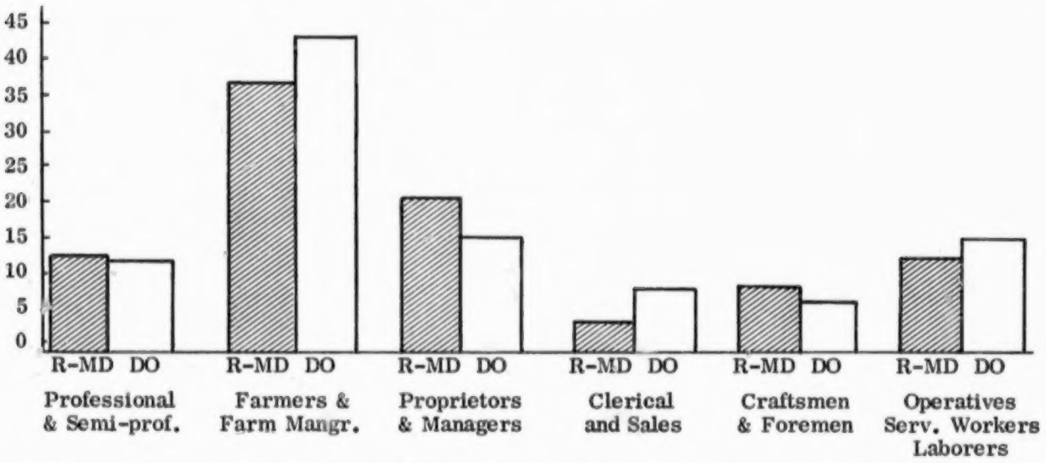

Fig. 3.2 - Occupation of Fathers of Spouses of Rural Medical Doctors (R-MD) and Osteopathic Doctors (DO).

Metropolitan General Practitioners

Fathers' Occupations of Metropolitan General Practitioners. The occupations of fathers of metropolitan general practitioners were rather widely distributed. As Table 3.3 indicates, professionals, farmers, proprietors and managers, clerical and sales, and blue-collar workers were all represented rather evenly. The substantial proportion of farmers' sons is of interest.

TABLE 3.3 - OCCUPATIONS OF FATHERS OF METROPOLITAN GENERAL PRACTITIONERS

Occupation	Number	Percent
Professional and Semi-professional	10	22.7
Farmers and Farm Managers	13	29.5
Proprietors, Managers, and Officials	8	18.2
Clerical and Sales	7	15.9
Craftsmen and Foremen	2	4.5
Operatives	1	2.3
Service Workers	2	4.5
Laborers (farm and non-farm)	1	2.3

*Occupation of 3 fathers not designated.

Seven of the 10 fathers designated as professional men were in medically connected occupations; 5 of these were physicians. Three of the sons of physicians were 55 or older and 2 were under 55. (Appendix Table 3.8).

General practitioners under 55 years of age were less likely to be sons of farmers than were those 55 and over; on the other hand, they were more likely to be sons of clerical and sales and blue-collar workers. (Appendix Table 3.7).

Fathers' Occupations of Spouses. Spouses were less likely to have fathers classified as professionals than were the general practitioners. They had similar proportions classified as farmers, proprietors and managers, and clerical and workers. They had a higher proportion in the blue-collar categories. About two-fifths said their spouses had rural background.

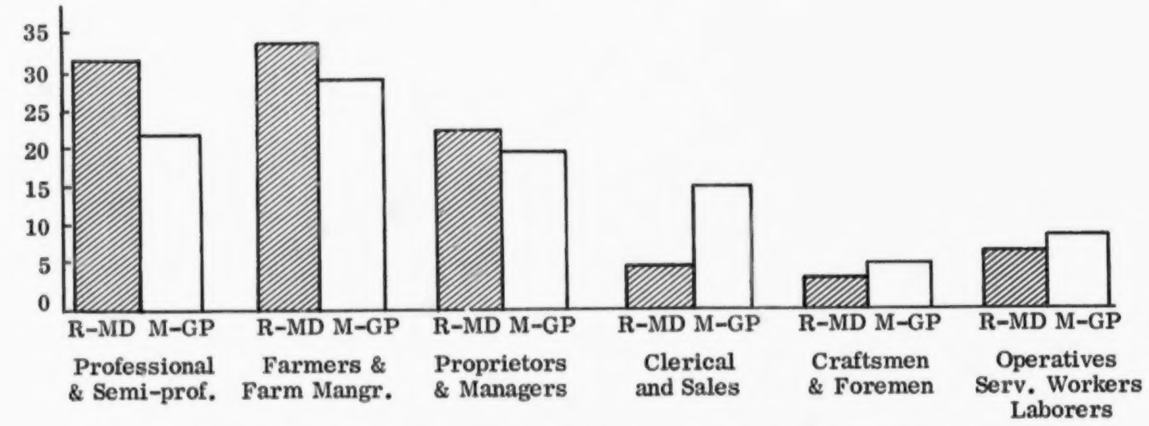

Fig. 3.3 - Occupation of Fathers of Rural Medical Doctors (R-MD) and Metropolitan General Practitioners (M-GP).

Comparison of Family Background of Rural Medical Doctors and Metropolitan General Practitioners

Figure 3.3 compares the occupations of fathers of rural and urban general practitioners. Some variations are noted, but the differences are not great enough to be statistically significant. What is seen in the graph is that medical general practitioners in both areas have a background in the white collar occupations or in farming. When age was controlled at above and below 55 years the basic similarity remained and no significant difference resulted. Nor was there a significant difference according to whether or not the fathers were in medically connected occupations. The relationship did not change when age categories were considered separately.

The occupations of the fathers of physicians' spouses was also quite similar for rural and metropolitan general practitioners. The largest difference came in the "farmer" category; however, the differences were not statistically significant.

Metropolitan Specialists

Fathers' Occupations of Metropolitan Specialists. The fathers of the metropolitan specialists were more often in the professional category than any other. This was followed by proprietors and managers. It may be surprising that a substantial proportion (17 percent) of the specialists were sons of farmers. Also, a substantial proportion were from the lower white-collar and blue-collar occupations.

TABLE 3.4 - OCCUPATIONS OF FATHERS OF METROPOLITAN SPECIALISTS

Occupation	Number	Percent
Professional and Semi-prof.	13	28.3
Farmers and Farm Managers	8	17.4
Proprietors, Managers, and Officials	9	19.6
Clerical and Sales	6	13.0
Craftsmen and Foremen	8	17.4
Operatives	2	4.3
Service Workers	---	---
Laborers (farm and nonfarm)	---	---

*Occupation 1 father not designated.

Of the 13 fathers in professions, 9 were in medically connected occupations, all of whom were physicians (Appendix Table 3.10).

The older specialists were more likely to have had fathers in the professions than were younger specialists. The older specialists were also less likely to be sons of proprietors and managers (Appendix Table 3.9).

Fathers' Occupations of Spouses. The fathers' occupations of spouses of specialists followed quite closely the occupation of the fathers of the specialists. About the same proportion were professional men. Fewer were clerical and sales, farmer, and blue-collar occupations. More were proprietors and managers. Thirty-six percent of the specialists indicated their spouses had a rural background.

Comparison of Family Background of Rural Medical Doctors and Metropolitan Specialists

A difference in fathers' occupations was found when rural medical doctors and metropolitan specialists were compared. The professional occupations category did not contribute to this difference; it came from the farm category and from the combined lower white-collar occupations and blue collar occupations in which case the specialists had a larger representation.

In the comparison of these two groupings of physicians, age is an important control consideration in that the rural physicians were on the average older than the specialists. When age was controlled, it was found that the differences in occupation of fathers were greater for those 55 or over than for those at or under 55 years of age. In neither age group was the difference contributed to by the professional category.

Since most of the fathers who were professional men were in medical professions it is not surprising, in view of the findings above, that there was no difference in rural doctors and metropolitan specialists in the proportions who were sons of those in medically-connected occupations. This was also true when age categories were considered separately.

The spouses of metropolitan specialists were more likely to have fathers in the professions than were the spouses of rural medical doctors. They were less likely to have farmer fathers.

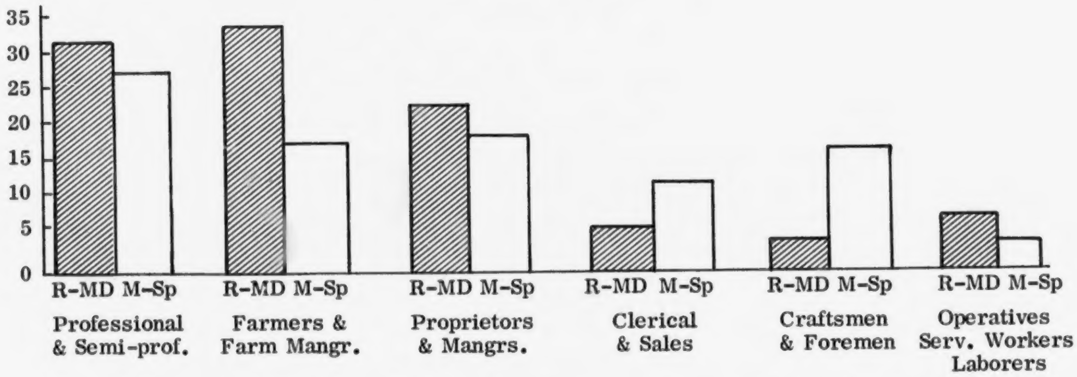

Fig. 3.4 - Occupations of Fathers of Rural Medical Doctors (R-MD) and Metropolitan Specialists (M-Sp).

SUMMARY OF X^2 ANALYSES OF FAMILY BACKGROUND OF PHYSICIANS

Comparison of Rural Medical Doctor and Rural Osteopathic Doctor	X^2	d.f.	signif.[1]
Occupation of Father	4.9	3	-
Age			
Under 55	3.1	3	-
55 and Over	3.8	3	-
Size of Place			
Under 2500	2.1	3	-
2500 or Larger	3.8	3	-
Medically Connected Profession	5.8	1	*
Age			
Under 55	2.6	1	-
55 and Over	5.4	1	*
Occupation of Spouse's Father	1.6	3	-
Comparison of Rural Medical Doctor and Metropolitan General Practitioners			
Occupation of Father	6.7	3	-
Age			
Under 55	1.5	2	-
55 and Over	1.5	2	-
Medically Connected Profession	2.0	1	-
Age			
Under 55	1.1	1	-
55 and Over	0.9	1	-
Occupation of Spouse's Father	6.6	3	-
Comparison of Rural Medical Doctors and Metropolitan Specialists			
Occupation of Father	8.2	3	*
Age			
Under 55	2.4	3	-
55 and Over	6.1	2	*
Medically Connected Occupation	0.8	1	-
Age			
Under 55	0.6	1	-
55 and Over	0.0	1	-
Occupation of Spouse's Father	12.2	3	**

[1] (-) = Not significant at the 5 percent level.
* = Significant at the 5 percent level.
** = Significant at the 1 percent level.

Summary and Conclusions. Because, as will be shown later, the background of doctors practicing in rural areas was largely rural, it can be said that the rural medical doctors were predominately sons of small town businessmen, professional men and farmers. Members of these occupational groups are the "backbone" of small town society.

The study showed that any supposition that sons of farmers would be confined to rural areas was in error; they were represented among all residential-types of physicians in substantial proportions.[17] The metropolitan specialists were least likely to be sons of farmers; the rural osteopaths most likely. The general tendency was for the proportion of sons of farmers to decline among younger physicians. Noteworthy, among the rural medical doctors, the youngest doctors were about as likely to be sons of farmers as any other age groupings with the exception of the oldest.

The professions supplied physicians in all residence-types in proportions of about 20 to 30 percent. This occupational background seemed to be least related to age of the physician. The largest proportion of the professions were classed as physicians or other medically-connected workers. The metropolitan specialists and rural medical doctors had the highest proportions of physician fathers.

The fathers of metropolitan physicians, both general and specialists, were more likely to have lower status white collar occupations or blue collar occupations than were the fathers of rural medical doctors. In a sense this may be a substitution of these occupational categories for farmers, but it also indicates that mobility channels are not closed. To this point, physicians under 45 in all residence-type categories were more likely to have these lower status backgrounds than were older physicians. Further, there appeared to be less direct inheritance of the medical profession among younger doctors (with the possible exception of osteopathic physicians).[18]

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[17] In recent study, 17 percent of the medical students at the University of Kansas were sons of farmers. Howard S. Becker *et. al.*, *Boys in White*, Chicago University Press, 1961, p. 61.

[18] See Stuart Adams, "Trends in Occupational Origins of Physicians" *American Sociological Review* Vol. 18, No. 4, August 1953, pp. 404-409.

CHAPTER IV

Place History - The Early Years

The hypothesis used here is that the place of present practice is related to locations at other times in the individual's life. Thus we would expect rural doctors to have a rural background and, further, we will check to see if they are "local" in terms of state and town. The method used is to identify the physician's location at certain strategic points in his life. These locations provide points in a place history for each physician.

The place history is divided into three periods: (1) The early years, (2) the training years, and (3) career locations.

During the early years in the life of an individual, his location is largely dependent upon his family's place of residence. In a sense, such locations directly reflect family background. For the early years, the locations of the following events were recorded: place of birth, place started school, place finished eighth grade, and place finished high school. These events are usually readily recalled. Further, it was thought that since formal training is central in a physician's experience, that events connected with the school would have significance in career choices.

Rural Medical Doctors. A principal consideration with regard to locational background is the size of place in which the physicians lived during their early years. Specifically, were these doctors reared in places no larger than those found in the 20-county area? As was pointed out earlier, the largest place in the area at the time of the survey was just under 10,000 population; therefore, this was used as the upper size limit. Eighty percent of the medical doctors were born in places under 10,000 in population. Eighty-five percent started school, 85 percent finished 8th grade, and 84 percent were graduated from high school while living in places under 10,000 population.[19]

More than one-third of the medical doctors were born on farms. The proportion living on farms declined through the time of starting school and finishing grade school

TABLE 4.1 - SIZE OF PLACE OF RESIDENCE OF RURAL MEDICAL DOCTORS AT SELECTED POINTS IN THE PLACE HISTORY

Size of Place of Residence	Birth (N=71)	Started Grade School (N=71)	Graduated 8th Grade* (N=67)	Graduated 12th Grade** (N=62)
	Percent	Percent	Percent	Percent
Farm or Open Country	33.8	28.2	23.9	21.0
Under 1,000	22.5	19.8	17.9	12.8
1,000 - 2,499	15.5	19.8	17.9	19.4
2,500 - 9,999	8.5	16.9	25.4	30.6
10,000 +	19.6	15.4	14.9	16.1

*Information not available for 4 physicians.
**Information not available for 9 physicians.

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[19] The size of place was determined for the nearest census period that the event took place.

to 21 percent at the time of graduating from high school. The proportion living in places over 2,500 increased steadily from 23 percent at birth to 47 percent at the time of graduation from high school; although, the proportion living in places 10,000 or larger declined slightly. This seems to indicate that the families were urbanly mobile within the narrow range of 2,500 to 10,000 population.

The oldest medical doctors were most likely to have been born on a farm and least likely to have been born in a place of 2,500 population or more. Those in the 45-54 age category were least likely to have been born on a farm. The youngest physicians had the largest proportion born in places of 2,500 or more (Appendix Table 4.1).

A distinction can be made as to whether or not the medical doctors practicing in the 20-county area were located within the state at one of the designated points in the early years. Almost two-thirds were born and started school, finished the eighth grade, and graduated from high school all within the borders of the state. More than three-fourths (77.5 percent) had been in the state at one or more of the above points of the early years place history.

Thirty-two percent of the medical doctors in the area were born outside of Missouri, 20 percent in adjoining states and 11 percent in non-adjoining states.[20] One quarter of the doctors had graduated from high schools outside the state, 14 percent from adjoining states.[21]

The proportion of physicians born outside the state was quite similar for the different age groupings, as was the proportion living outside of the state at the time of graduation from high school (Appendix Tables 4.3 and 4.4).

The physician's practicing in the town in which he spent a part of his youth is direct evidence of the influence of previous location on present location. An area within 30 miles of a place was considered to be the hometown area. It seems quite remarkable that 38 percent of the medical doctors were in the place of their present practice during at least one point in the early years place history and 24 percent were in the place of their present practice during each of the place history points. Twenty-eight percent were born, 32 percent started school, 32 percent finished

TABLE 4.2 - LOCATION OF EVENTS IN THE PLACE HISTORY OF RURAL MEDICAL DOCTORS WITH REFERENCE TO THE STATE

Location	Birth (N=71)	Started School (N=71)	Graduated 8th Grade* (N=67)	Graduated 12th Grade** (N=63)
	Percent	Percent	Percent	Percent
Missouri	67.6	70.4	70.1	74.6
Adjacent State	19.7	16.9	17.9	14.3
Non-adjacent State	11.3	11.3	10.4	9.5
Not in U.S.	1.4	1.4	1.5	1.6

*Information not available for 4 physicians.
**Information not available for 8 physicians.

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[20] One physician was born outside the United States.

[21] These two points of the place history (birth and place of graduation from high school) are the ones commonly used in this discussion for more detailed analysis. Data for the other points are usually bracketed by these points.

grade school, and 31 percent finished high school in the place of their present location. Locations in the early years seem to operate strongly in the choice of career location for the medical doctors in this area. The "hometown boy" as the doctor is not unusual by any means.

Medical doctors presently located in places of less than 2,500 population were much more likely to have been born in that place than were physicians practicing in places of 2,500 or more (43 percent to 17 percent). The oldest doctors were most likely to be practicing in their place of birth -- exactly 1/2 were born in the area of their present practice. The oldest physicians also were the most likely to be practicing in the area where they had graduated from high school.[22] It might have been concluded that the "hometown boy" as doctor was characteristic of another era if the youngest physicians were not the next most likely age category to have been born and/or graduated from high school in the place of their present practice. On the other hand, only physicians between 55 and 64 years of age were more likely than the youngest grouping of physicians to have been born outside the state and none exceeded the proportion of youngest physicians living outside the state at the time of graduation from high school. The youngest physicians, then, had heavy representation among the "hometowners" and the "outlanders."

TABLE 4.3 - PRESENT PRACTICE IN RELATION TO HOMETOWN DURING THE EARLY YEARS; RURAL MEDICAL DOCTORS

	Birth (N=71)	Started School (N=71)	Finished 8th Grade (N=67)*	Finished 12th Grade (N=63)**	At Any of the Times (N=71)
	Percent	Percent	Percent	Percent	Percent
Hometown (same town or within 30 miles)	28.1	32.5	34.3	34.9	38.0
Not Hometown	71.9	67.5	65.7	65.1	62.0

*Information not available for 4 physicians.
**Information not available for 8 physicians.

Osteopathic Doctors. The same considerations of location are made for osteopathic doctors as for medical doctors and the discussion is presented in a parallel manner so that comparisons can be made.

Seventy-seven percent were born in places of less than 10,000 population. The proportion found in places under 10,000 declined for each of the other points in the early years place history (71 percent started school; 67 percent finished grade school; and 65 percent finished high school while living in places under 10,000 population).

One-quarter of the osteopathic doctors were born on farms; the proportion living on farms varied only slightly at the times of starting school and finishing the eighth grade. It was down to 18 percent by the time of graduating from high school. The proportion living in places of over 2,500 increased from 39 percent at birth to 54

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[22] In the oldest age category 7 physicians reported they had not formally graduated from high school. They were excluded from this analysis.

TABLE 4.4 - SIZE OF PLACE OF RESIDENCE OF OSTEOPATHIC DOCTORS AT SELECTED POINTS IN THE PLACE HISTORY

Size of Place of Residence	Birth (N=80)	Started Grade School (N=80)	Graduated 8th Grade* (N=78)	Graduated 12th Grade** (N=72)
	Percent	Percent	Percent	Percent
Farm or Open Country	25.0	26.2	24.4	18.1
Under 1,000	30.0	20.0	14.1	18.1
1,000 - 2,499	6.2	11.2	11.5	9.7
2,500 - 9,999	16.2	13.8	16.7	19.4
10,000 +	22.6	28.8	33.4	34.8

*Information not available for 2 physicians.
**Information not available for 8 physicians.

percent at the time of graduation from high school. The larger part of this increase occurred in places of 10,000 or more.

Osteopathic physicians in the two older age categories were much more likely to have been born on farms than those in the two younger age categories. More than three-fourths of those 55 or over were born on farms or places under 1,000 in population. More than half of those under 45 years of age were born in urban places and more than one-fourth of those in both of the younger age categories were born in places of 10,000 or more (Appendix Table 4.5).

Osteopathic doctors practicing in the 20-county area were more likely than not to have been born and reared outside the state. Thirty-five percent were born and started school, finished the eighth grade, and graduated from high school, all within the state. Forty-five percent had been in the state at one or more of these points in time.

Almost two-thirds of the osteopathic physicians in the area were born outside of Missouri. One-third were born in adjoining states and a like number were born in non-adjoining states. Fifty-four percent of the osteopathic doctors graduated from high school outside the state, 19 percent in adjoining states, and 35 percent in more distant states.

The largest proportions of osteopathic physicians born outside the state were in the two middle age categories (45-54, 55-64), in which three-fourths were born outside of Missouri (Appendix Table 4.7).

Considering hometowners as those that had lived in the place of present practice during at least one period in their early place history, 18 percent of the osteopathic

TABLE 4.5 - LOCATION OF EVENTS IN THE PLACE HISTORY OF OSTEOPATHIC DOCTOR WITH REFERENCE TO THE STATE

Location	Birth (N=80)	Started School (N=80)	Graduated 8th Grade* (N=78)	Graduated 12th Grade** (N=74)
	Percent	Percent	Percent	Percent
Missouri	36.2	40.0	41.0	45.9
Adjacent State	32.5	27.5	24.4	18.9
Non-adjacent State	31.3	32.5	34.6	35.1
Not in U.S.	---	---	---	---

*Information not available for 2 physicians.
**Information not available for 6 physicians.

physicians could be so classified. Eight percent of them indicated that they had been in their home town at each of the 4 points in the early place history. One in ten was born in the place in which he was practicing. Twelve percent had started school, 12 percent had finished grade school, and 15 percent had finished high school in their present location.

Osteopathic doctors presently located in places of less than 2,500 were more likely to have been born in that place than those practicing in places of 2,500 or more (12 percent and 6 percent). The youngest osteopathic physicians were most likely to be practicing in their place of birth (13 percent). They were also most likely to be practicing in the place where they had graduated from high school though physicians in the 45-54 age group had almost an equal percentage.

TABLE 4.6 - PRESENT PRACTICE IN RELATION TO HOMETOWN DURING THE EARLY YEARS, OSTEOPATHIC DOCTORS

	Birth (N=80)	Started School (N=80)	Finished 8th Grade* (N=78)	Finished 12th Grade** (N=74)	At Any of the Times (N=80)
	Percent	Percent	Percent	Percent	Percent
Hometown (same town or within 30 miles)	10.0	12.5	12.8	14.9	17.5
Not Hometown	90.0	87.5	87.2	85.1	82.5

*Information not available for 2 physicians.
**Information not available for 6 physicians.

Comparison of Rural Medical Doctors and Osteopathic Doctors. Farm and small town backgrounds were dominant for both types of physicians practicing in the 20-county area (Figure 4.1). Any percentage differences observed almost disappeared when age of the physicians was controlled and in no case was a statistically significant difference found.

The evidence supports the contention that medical doctors practicing in the area were more local both in terms of having spent some part of their youth in

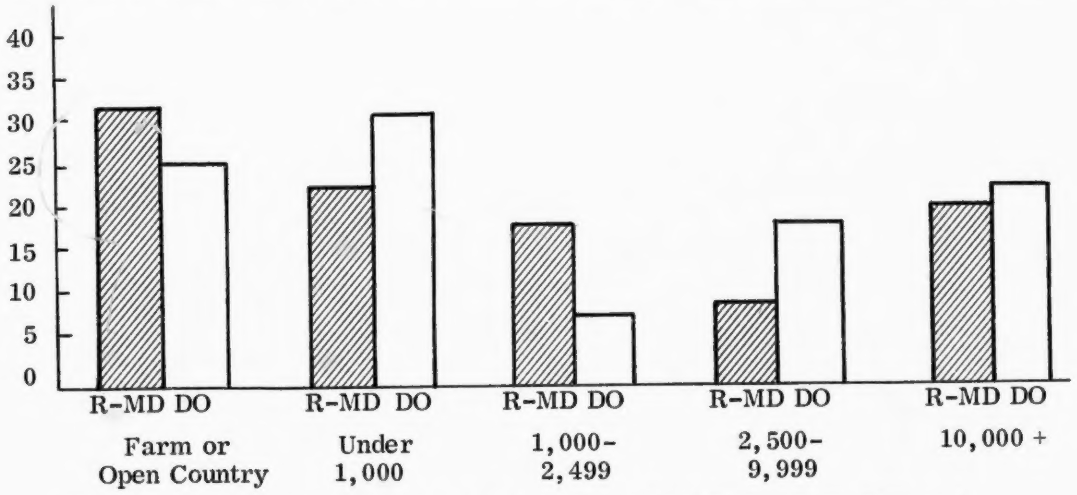
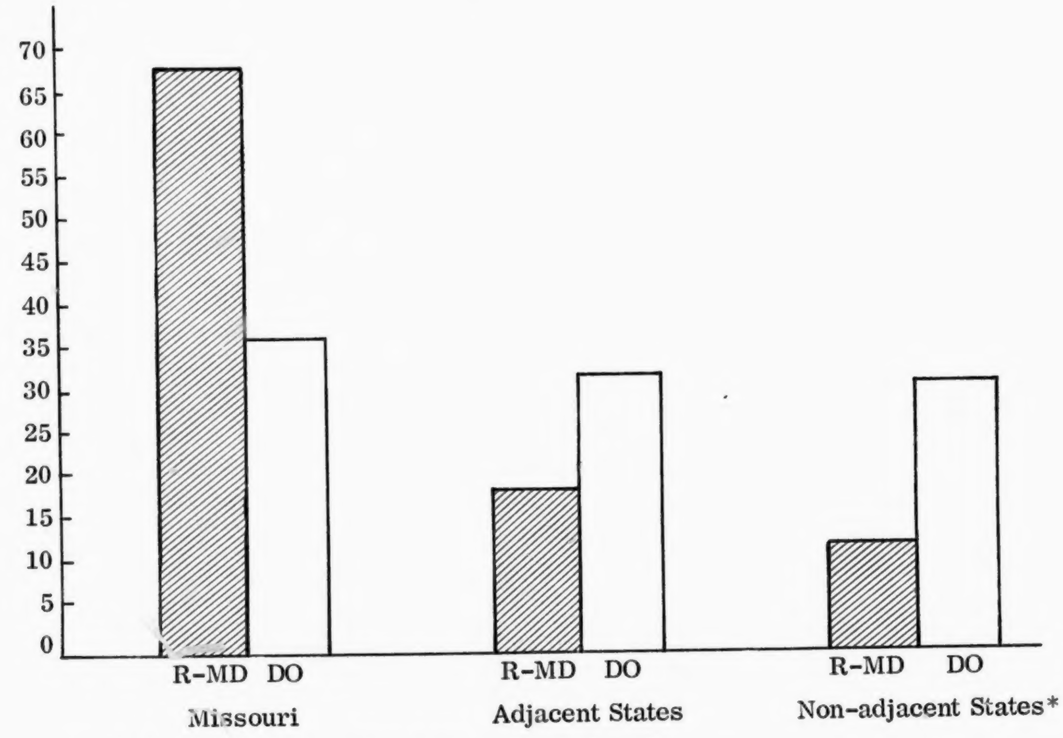


Fig. 4.1 - Size of Place of Birth of Rural Medical Doctors (R-MD) and Osteopathic Doctors (DO).

the state and in the place of present practice.

The difference in pattern of place of birth for rural medical doctors and osteopathic doctors is illustrated in Figure 4.2. Differences in state of birth were statistically significant and this was so when age was controlled. The differences also held by age for place of graduation from high school.



*Included 1 medical doctor born outside of U.S.

Fig. 4.2 - Place of Birth of Rural Medical Doctors (R-MD) and Osteopathic Doctors (DO).

When the more direct locational influence of home town was considered, it was found that medical doctors were more likely than osteopathic doctors to have been born in the place of their present practice. When age was controlled, the difference remained statistically significant for older physicians but not for younger physicians. The same pattern was observed for graduation from high school.

Metropolitan General Practitioners. About the same proportions of metropolitan general practitioners were born on farms or in places with less than 1,000 population (30.4 percent) as were born in places 100,000 or larger (28.4 percent). But, by the time these same physicians graduated from high school, more than twice as many were living in places of 100,000 or more (Table 4.7).

A larger proportion of the oldest metropolitan general practitioners were born on farms than of the other age groupings. Larger proportions of the younger physicians were born and graduated from high school in places of 100,000 or more (Appendix Table 4.9).

The site of the metropolitan center makes it difficult to compare the locations of rural and metropolitan physicians with the state as a reference point. While all

TABLE 4.7 - SIZE OF PLACE OF RESIDENCE OF METROPOLITAN GENERAL PRACTITIONERS AT SELECTED POINTS IN THE PLACE HISTORY

Size of Place of Residence	Birth* (N=46)	Started Grade School* (N=46)	Graduated 8th Grade** (N=43)	Graduated 12th Grade*** (N=45)
	Percent	Percent	Percent	Percent
Farm or Open Country	17.4	15.2	18.6	11.1
Under 1,000	13.0	19.6	9.3	4.4
1,000 - 2,499	8.7	4.3	7.0	8.9
2,500 - 9,999	19.6	15.2	16.3	22.2
10,000 - 100,000	13.0	15.2	14.0	15.6
100,000 +	28.3	30.4	34.9	37.8

*Information not available for 1 physician.
**Information not available for 4 physicians.
***Information not available for 2 physicians.

the metropolitan physicians were drawn from Kansas City, Mo., the metropolitan area extends into Kansas and the city serves a wide area of that state. Because of this, Missouri and Kansas were considered together as the "home state" for physicians located in Kansas City. This did not affect the comparisons with rural medical doctors much, in that, only 3 rural medical doctors were born in Kansas and an additional one had lived in Kansas at another point of the place history. For both rural and metropolitan doctors, the adjacent and non-adjacent categories referred to Missouri. Again, in terms of the data this made little difference because Kansas has only one state (Colorado) adjacent to it that is not adjacent to Missouri. The difference that this change made was that more metropolitan physicians were placed in the "home state" category, fewer in the adjacent state category. It is our judgment that this was the proper disposition of these cases.

About 57 percent were born in either Missouri or Kansas. The proportions did not change much for the other points in the early years place history as indicated in Table 4.8. About one-fourth of the physicians were in non-adjacent states at each point in the early years.

TABLE 4.8 - LOCATION OF EVENTS IN THE PLACE HISTORY OF METROPOLITAN GENERAL PRACTITIONERS WITH REFERENCE TO THE STATE

Location	Birth (N=47)	Started School (N=47)	Graduated 8th Grade** (N=44)	Graduated 12th Grade*** (N=45)
	Percent	Percent	Percent	Percent
Missouri	42.6	44.7	50.0	51.1
Kansas	14.9	17.0	15.9	11.1
Adjacent State to Missouri*	14.9	10.6	9.1	13.3
Non-adjacent State to Missouri	23.4	23.4	22.7	22.2
Not in U.S.	4.3	4.3	2.3	2.2

*Other than Kansas.
**Information not available for 3 physicians.
***Information not available for 2 physicians.

The number of cases does not permit firm conclusions about the relationship of age to place history location. If Missouri and Kansas are considered as a unit, there appears to be little difference by age in the proportions born or graduated from high school in Missouri-Kansas and states adjacent to Missouri (Appendix Tables 4.11 and 4.12).

Sixteen of the 47 physicians (34 percent) were classified as "hometowners" because they had been in Kansas City and its immediate vicinity at one of the points of their early place history.

Practicing in the "hometown" of one's youth was not clearly related to age among metropolitan general practitioners. The younger physicians seemed as likely to be products of Kansas City and its environs as were the older physicians.

TABLE 4.9 - PRESENT PRACTICE IN RELATION TO HOMETOWN DURING THE EARLY YEARS; METROPOLITAN GENERAL PRACTITIONERS

	Birth (N=47)	Started School (N=47)	Finished 8th Grade* (N=45)	Finished 12th Grade* (N=45)	At Any of the Times (N=47)
	Percent	Percent	Percent	Percent	Percent
Hometown (Kansas City or within 30 miles)	21.3	23.4	26.7	26.7	34.0
Not Hometown	78.7	76.6	73.3	73.3	66.0

*Information not available for 2 physicians.

Comparison of Rural Medical Doctors and Metropolitan General Practitioners. There was a difference in the size of place of birth for the two types of physicians. This is illustrated in Figure 4.3. The chi square analysis indicated significant differences in size of place of birth and place of graduation from high school (other points in the early place history were not checked but they were similar). The difference also held, with one exception, when age was controlled at 55 years. The exception was for place of birth of physicians under 55 years, which closely approached the 5 percent level of significance.

The pattern of place of birth with reference to home-state was not much different for rural medical doctors and metropolitan general practitioners. Figure

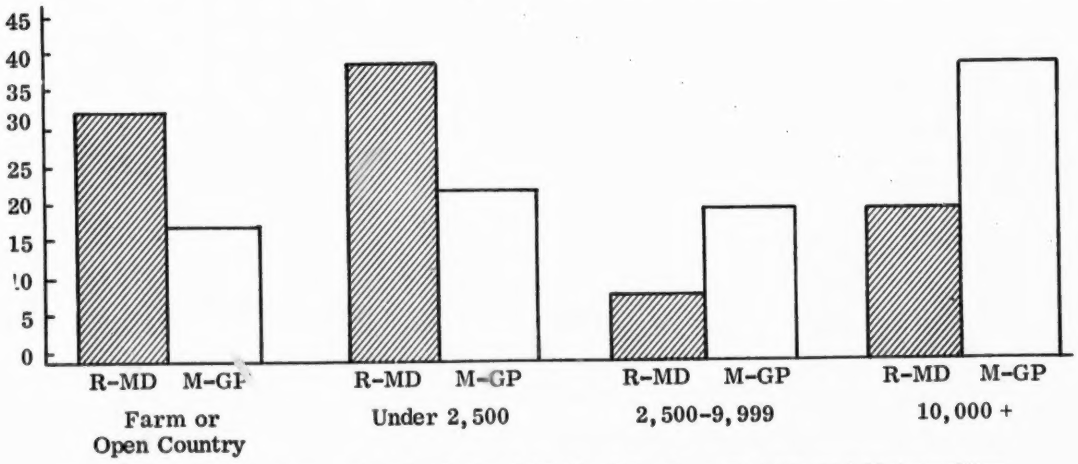


Fig. 4.3 - Size of Place of Birth of Rural Medical Doctors (R-MD) and Metropolitan General Practitioners (M-GP).

4.4 illustrates the close correspondence. When place of graduation from high school was considered it followed closely the pattern of place of birth.

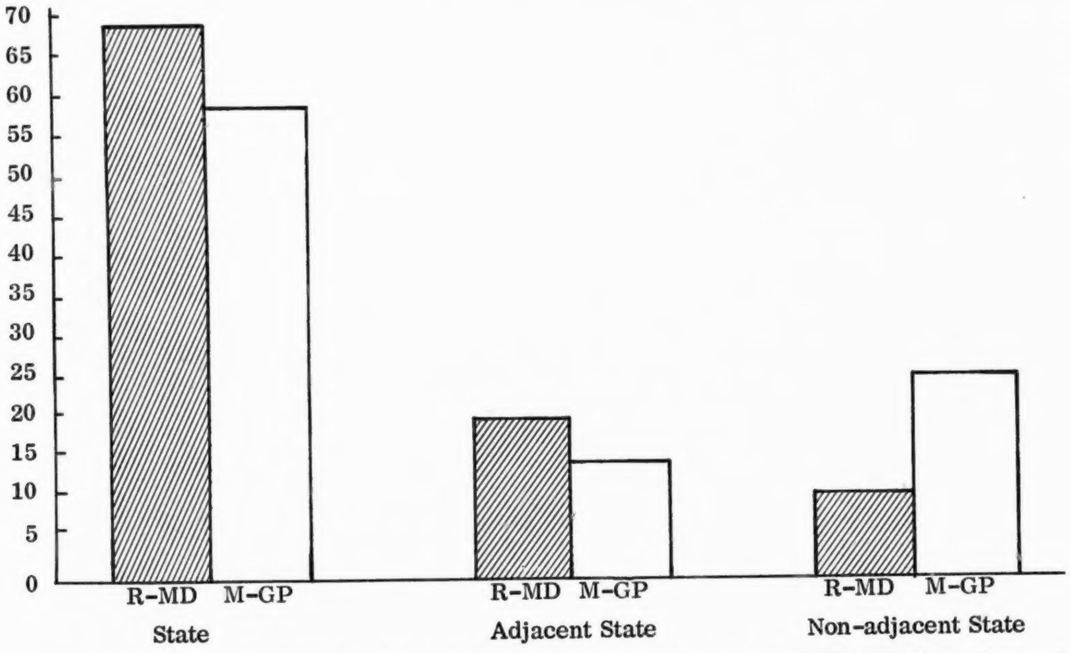


Fig. 4.4 - Place of Birth of Rural Medical Doctors (R-MD) and Metropolitan General Practitioners (M-GP).

Metropolitan Specialists. Few of the specialists had been in places of less than 2,500 population at any point in their early place history. About one-half of them were in places of 100,000 or more population during each point. (Table 4.10).

TABLE 4.10 - SIZE OF PLACE OF RESIDENCE OF METROPOLITAN SPECIALISTS AT SELECTED POINTS IN THEIR PLACE HISTORY

Size of Place of Residence	Birth* (N=46)	Started Grade School (N=47)	Graduated 8th Grade** (N=44)	Graduated 12th Grade* (N=46)
	Percent	Percent	Percent	Percent
Farm or Open Country	8.7	8.5	4.5	4.3
Under 1,000	8.7	8.5	6.8	8.7
1,000 - 2,499	2.2	2.1	4.5	4.3
2,500 - 9,999	21.7	19.2	22.8	15.2
10,000 - 100,000	6.5	6.4	6.8	13.0
100,000 +	45.6	46.8	50.0	52.2
Not in U.S.	6.4	8.5	4.5	2.2

*Information not available for 1 physician.
**Information not available for 3 physicians.

A high proportion of the specialists were from Missouri-Kansas, ranging from 64 percent at birth to 72 percent at time of graduation from high school. It is interesting that the specialists were much more likely to be from states non-adjacent to Missouri than from those adjoining Missouri (Table 4.11).

TABLE 4.11 - LOCATION OF EVENTS IN THE PLACE HISTORY OF METROPOLITAN SPECIALISTS WITH REFERENCE TO THE STATE

	Birth (N=46)*	Started School (N=47)	Graduated 8th Grade (N=47)	Graduated 12th Grade (N=47)
	Percent	Percent	Percent	Percent
Missouri	43.5	53.2	51.1	51.1
Kansas	21.7	17.0	21.3	21.3
Adjacent State to Missouri	6.5	4.3	4.3	4.3
Non-adjacent State to Missouri	21.7	17.0	14.9	19.2
Not in U.S.	6.5	8.5	8.5	4.3
Not Determined		---	---	---

*Information not available for 1 physician.

The metropolitan area itself accounted for a substantial proportion of those who had early locations within the home-state area. More than two-fifths of the metropolitan specialists had resided in Kansas City during at least one of the points of their early place history.

TABLE 4.12 - PRESENT PRACTICE IN RELATION TO HOMETOWN DURING EARLY YEARS; METROPOLITAN SPECIALISTS

	Birth (N=47)	Started School (N=47)	Finished 8th Grade (N=47)	Finished 12th Grade (N=47)	At Any of the Times (N=47)
	Percent	Percent	Percent	Percent	Percent
Hometown (Kansas City or place within 30 miles)	27.6	31.9	31.9	40.3	42.6
Not Hometown	72.4	68.1	68.1	59.7	57.4

Because of the small numbers in the older age categories, not much reliance can be placed on differences by age group. What is clear at all ages is the high degree of localism in terms of state and home town and of urbanism in terms of size of place.

Comparison of Rural Medical Doctors and Metropolitan Specialists. A sharp difference occurred in the sizes of locations in which rural medical doctors and metropolitan specialists spent their youth (Figure 4.5). More than 80 percent of the rural physicians were living in a place of less than 10,000 population when they graduated from high school while less than one-third of the metropolitan specialists were living in places that small at the time of the same event.

There was virtually no difference in the proportion of rural medical doctors and metropolitan specialists in home-state residence in terms of youth locations (Figure 4.6). The difference that did occur was that rural doctors were more likely to have resided in adjacent states and the metropolitan specialists in non-adjacent states during their early years.

Rural medical doctors and metropolitan specialists were almost equally likely to have lived in their present place of practice during one of the periods of early place history.

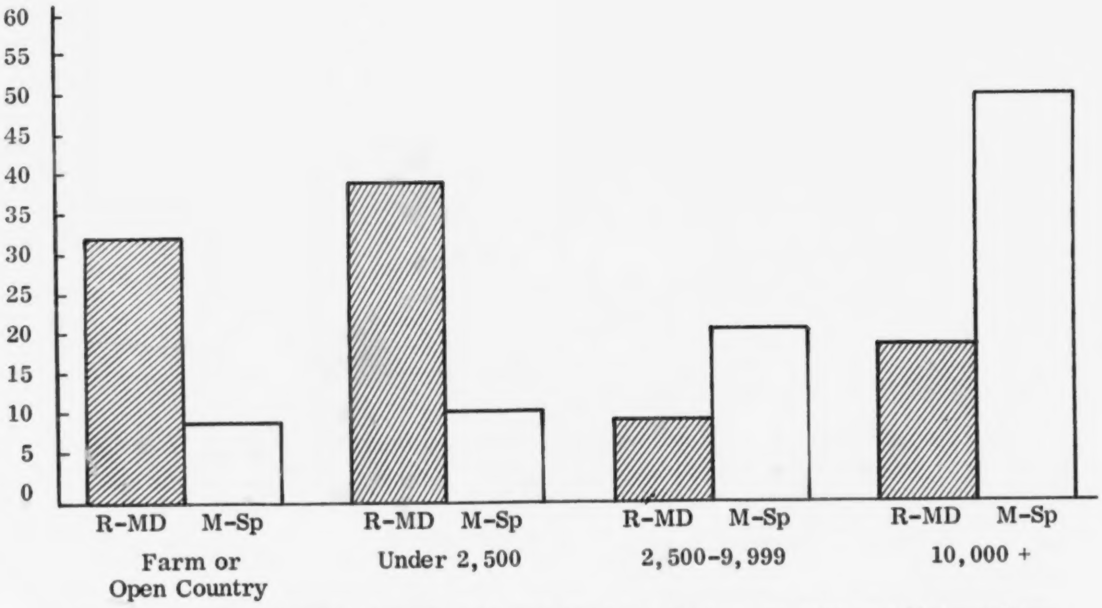
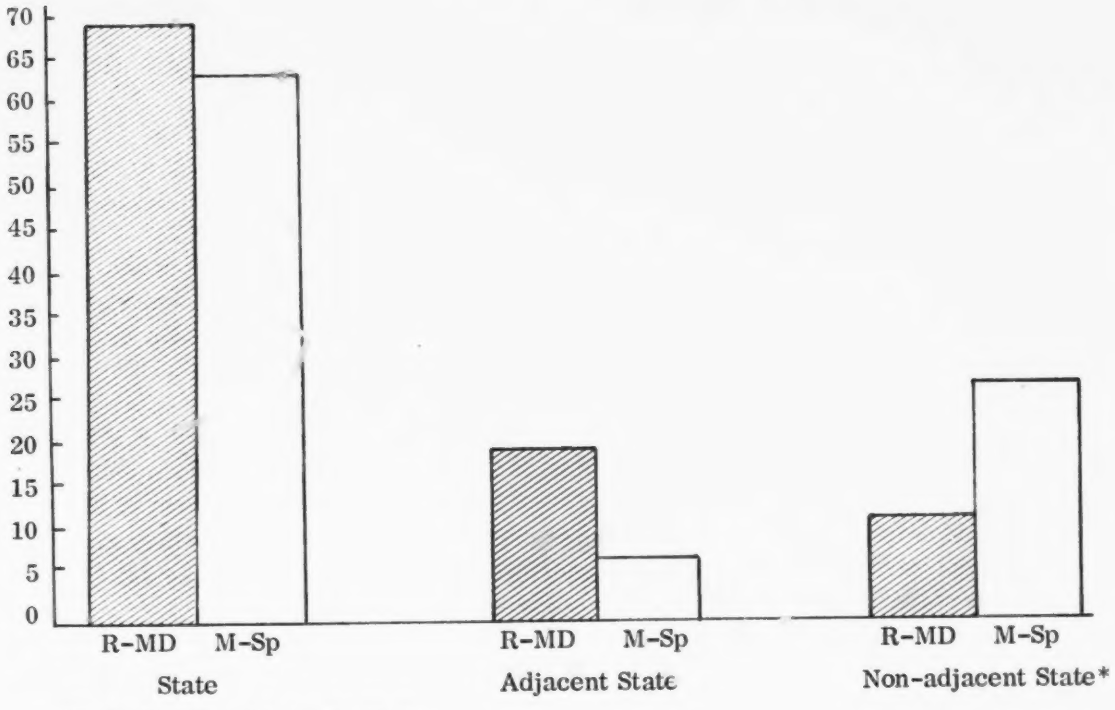


Fig. 4.5 - Size of Place of Birth of Rural Medical Doctors (R-MD) and Metropolitan Specialists (M-Sp).



*Including 3 not born in U.S.

Fig. 4.6 - Place of Birth of Rural Medical Doctors (R-MD) and Metropolitan Specialists (M-Sp).

SUMMARY OF CHI SQUARE ANALYSES OF EARLY YEARS PLACE HISTORY (continued)

	X^2	d.f.	signif.[1]
Rural Medical Doctors and Rural Osteopathic Doctors			
Size of Place of Birth	6.8	4	-
Under 55	1.0	2	-
55 and Over	0.9	2	-
Size of Place Graduation High School	9.0	4	-
Under 55	0.3	2	-
55 and Over	0.4	2	-
Place Birth With Reference to Missouri	15.3	2	**
Under 55	9.1	1	**
55 and Over	5.3	1	*
Place Graduation High School Reference to Mo.	13.4	2	**
Under 55	6.7	1	**
55 and Over	5.0	1	*
Hometown at One Point of Early Place History	7.9	1	**
Place of Birth is Present Place of Practice	8.1	1	**
Under 55	3.0	1	-
55 and Over	5.4	1	*
Place of Graduation from High School is Present Place of Practice	7.4	1	**
Under 55	3.4	1	-
55 and Over	4.9	1	*
Rural Medical Doctors and Metropolitan General Practitioners			
Size of Place of Birth	12.7	5	*
Under 55	7.7	3	-
55 and Over	8.5	2	*
Size of Place of Graduation from High School	18.6	5	**
Under 55	18.5	4	**
55 and Over	7.8	3	*
Place Birth with Reference to State	4.2	2	-
Under 55	0.2	1	-
55 and Over	1.2	1	-
Place of Graduation High School Reference to State	3.4	2	-
Under 55	1.4	1	-
55 and Over	0.6	1	-

SUMMARY OF CHI SQUARE ANALYSES OF EARLY YEARS PLACE HISTORY (continued)

	X^2	d.f.	signif.[1]
Hometown at One Point of Early Place History	0.2	1	-
Place of Birth is Present Place of Practice	0.7	1	-
Under 55	0.0	1	-
55 and Over	2.2	1	-
Place Graduation from High School is Present Place of Practice	0.7	1	-
Under 55	0.0	1	-
55 and Over	1.3	1	-
Rural Medical Doctors and Metropolitan Specialists			
Size of Place of Birth	28.3	4	**
Under 55	14.2	3	**
55 and Over	19.6	2	**
Size of Place Graduation High School	32.7	5	**
Under 55	19.7	4	**
55 and Over	6.4	1	*
Place Birth with Reference to State	7.0	2	*
Under 55	0.1	1	-
55 and Over	0.0	1	-
Place Graduation High School with Reference to State	5.2	2	-
Under 55	0.2	1	-
55 and Over	0.0	1	-
Hometown at One Point of Early Place History	0.2	1	-
Place of Birth is Present Place of Practice	0.1	1	-
Under 55	0.0	1	-
55 and Over	0.0	1	-
Place of Graduation from High School is Present Place of Practice	0.1	1	-
Under 55	0.1	1	-
55 and Over	1.2	1	-

[1] (-) = Not significant at 5 percent level.
* = Significant at 5 percent level.
** = Significant at 1 percent level.

Summary and Conclusions. Two characteristics of the early place history of physicians were considered: size of place and location with reference to state and town.

There appears to be no question about the relationship of size of place in the early years to size of place of subsequent practice. Rural doctors both medical and osteopathic, had predominantly rural backgrounds and the metropolitan doctors had predominantly urban locations during their youth.

The point for emphasis in youth locations with reference to state and town is that in this sense rural medical doctors were highly local. They were very likely to be residents of the state at some time during their youth and the place of practice was the hometown during the youth of a substantial number. The hometown boy as doctor is quite common in the rural area among medical doctors. Osteopathic doctors were not as likely to have resided in the state during their youth; nor to be practicing in the hometown of their youth.

The observation of the high degree of localism of rural medical doctors is not altered by the fact that the metropolitan physicians were no less local in their origins. It is suggested that the influence of small centers may be different from that of the larger center in attracting "their own" to practice. The reasoning is along this line: The small town boy is known to "everyone" during his youth and his return is viewed as a kind of homecoming. The larger center has many factors to attract the physician in addition to being the hometown, such as facilities, colleagues, and the fame and fortune of the city. Therefore, it is our hypothesis that the "hometown" quality of the rural center has a more singular influence upon location of physician than the metropolitan center.

The hypothesis that location in the early years is related to place of practice in terms of size of place and localism with reference to state and town seems to be unequivocally supported.

CHAPTER V

Place History - The Training Years

Coming from varied backgrounds the young man is brought into the medical profession by way of the educational system. Entering first a premedical course in the university or college, then the medical school followed by an intern period and for some a residency, he prepares for his career in medicine. These constitute the points of the place history of the training years. For each, the location in relation to the state is presented. Their age at these points is also noted.

Rural Medical Doctors. Eight of the older rural medical doctors reported that they had not attended undergraduate college. Of those attending college, 70 percent attended within the state and 16 percent attended in adjoining states. The principal undergraduate college of 52 percent was a public university or college; that of 43 percent, a private college or university; and that of 5 percent, a junior college.

A noticeable number of the rural medical doctors attended undergraduate colleges located outside of major metropolitan areas. More attended college in Fayette or Fulton, Mo. (5 in each) than in St. Louis (4) or Kansas City (3). The University of Missouri was the undergraduate school for more (10) than any other school.

Most of the physicians (83 percent) entered medical school directly from undergraduate college; and, for 86 percent, medical school was not interrupted once begun. Fifty-two percent graduated from schools in Missouri and 28 percent from schools in adjoining states. Almost two-thirds graduated from private medical schools. Twenty-eight of the 71 medical doctors graduated from schools in St. Louis; nine graduated from Kansas University; five from colleges in Chicago; five from the University of Missouri; four from Iowa University and three from the University of Tennessee. No more than two graduated from medical school in any other location.

Figure 5.1 indicates the age at which physicians graduated from medical school.

Sixty-three of the 71 medical doctors had interned. Two-thirds of those interning had done so in a place in the state, either in St. Louis or Kansas City. The

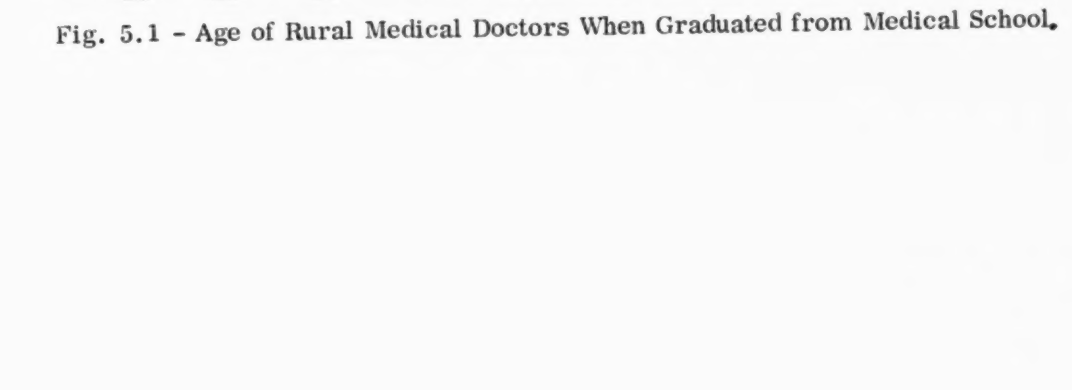


Fig. 5.1 - Age of Rural Medical Doctors When Graduated from Medical School.

only other places in which as many as 2 doctors from the area interned were Boston and Chicago.

Figure 5.2 indicates the age at which medical doctors completed their internship.

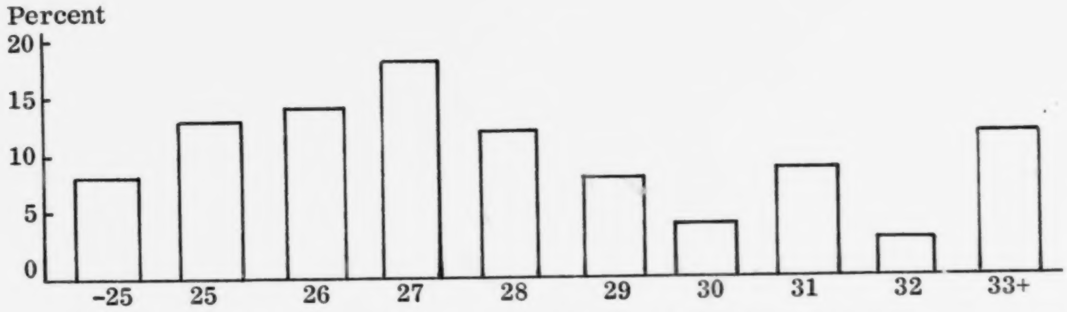


Fig. 5.2 - Age at Which Rural Medical Doctors Completed Internship.

Osteopathic Doctors. Twenty of the osteopathic physicians practicing in the area reported no undergraduate college. Of those attending an undergraduate college, the principal college of 41 percent was within the state and for 24 percent in adjoining states. Fifty-four percent attended a state university or college, 39 percent attended a private college or university, and 7 percent a junior college.

Kirksville was the place of the principal undergraduate college of more osteopathic doctors (12) than any other. Three attended undergraduate college in Kansas City and three in Columbia. No other place was the location of the undergraduate college of more than two of the osteopathic physicians.

Of the five osteopathic colleges in the country, two are in Missouri and two are in adjoining states. All osteopathic colleges are private institutions. Almost all of the osteopathic doctors practicing in the 20-county area had graduated from colleges located in the state -- 55 from Kirksville and 22 from Kansas City. For 92 percent, professional school was not interrupted once they had started.

Figure 5.3 indicates the age at which osteopathic physicians were graduated from professional school.

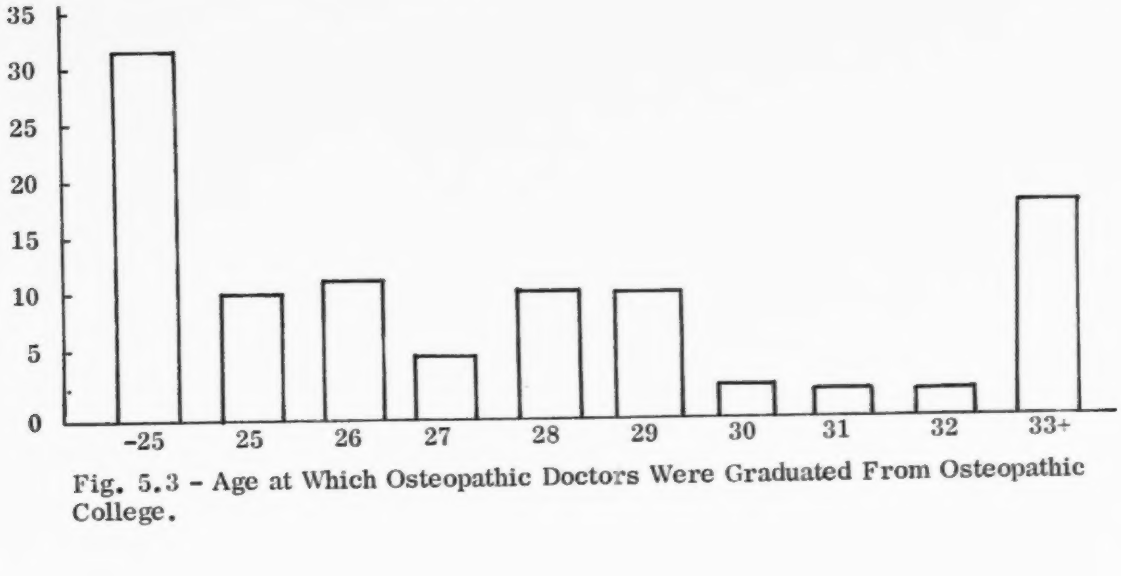


Fig. 5.3 - Age at Which Osteopathic Doctors Were Graduated From Osteopathic College.

Forty-six of the 80 osteopathic doctors (58 percent) reported that they had interned. Four out of five that interned did so within the state and 6 percent interned in adjoining states.

Kirksville was the most frequent location of internship (16) followed by Kansas City, Mo. (6). Five had interned in Jefferson City and Clinton, Mo. No more than one osteopathic physician had interned in any other place.

Figure 5.4 gives the age at which osteopathic doctors completed their internship.

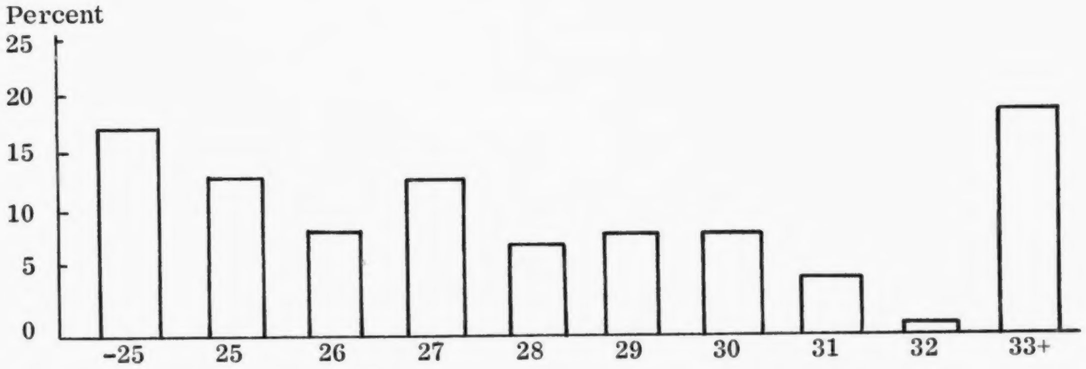


Fig. 5.4 - Age at Which Osteopathic Physicians Completed Internship.

Comparison of Place History During Training Years for Rural Medical Doctors and Osteopathic Physicians. When osteopathic and medical doctors were compared on the location of their principal undergraduate college, it was found that medical doctors were more likely to have attended college within the state. This is indicated in Figure 5.5; the difference was significant. The place of attendance of professional

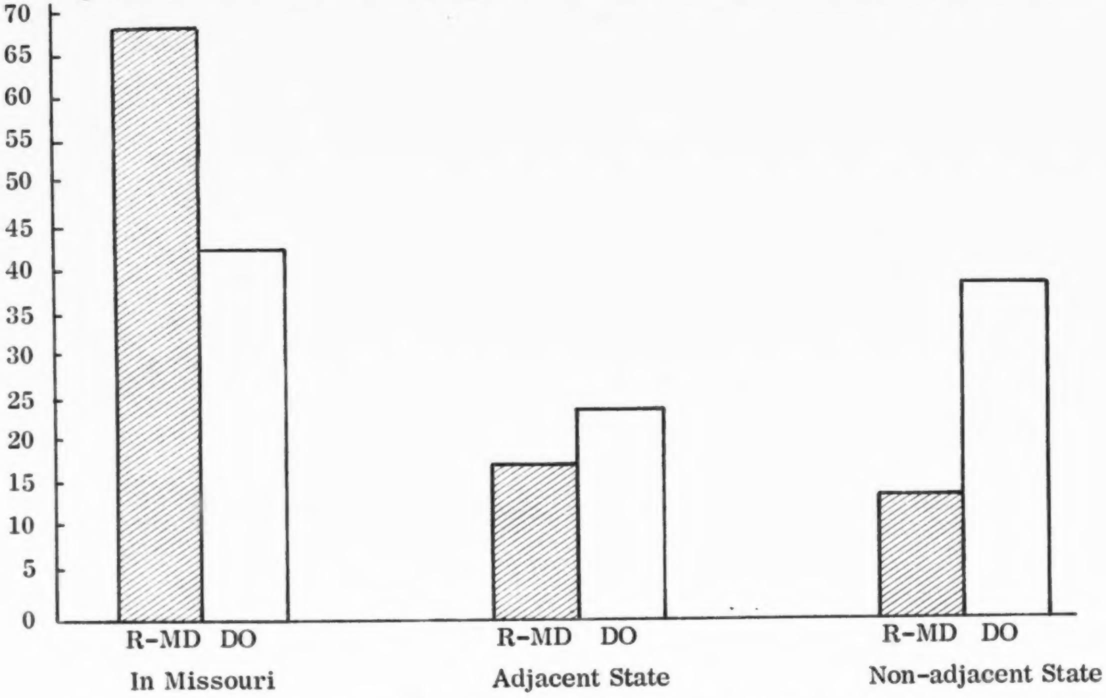


Fig. 5.5 - Place of Principal Undergraduate College for Rural Medical Doctors (R-MD) and Osteopathic Doctors (DO).

school was also different. In this case virtually all (96 percent) of the osteopathic physicians were trained in Missouri schools while just over half of the medical doctors were graduated from medical schools in Missouri. The difference was significant by the chi square test. At the time of internship both medical doctors and osteopaths were concentrated heavily in the state -- two-thirds of the medical doctors and four-fifths of the osteopaths (Figure 5.6). The difference was not statistically significant; although a larger proportion of the rural medical doctors had interned.

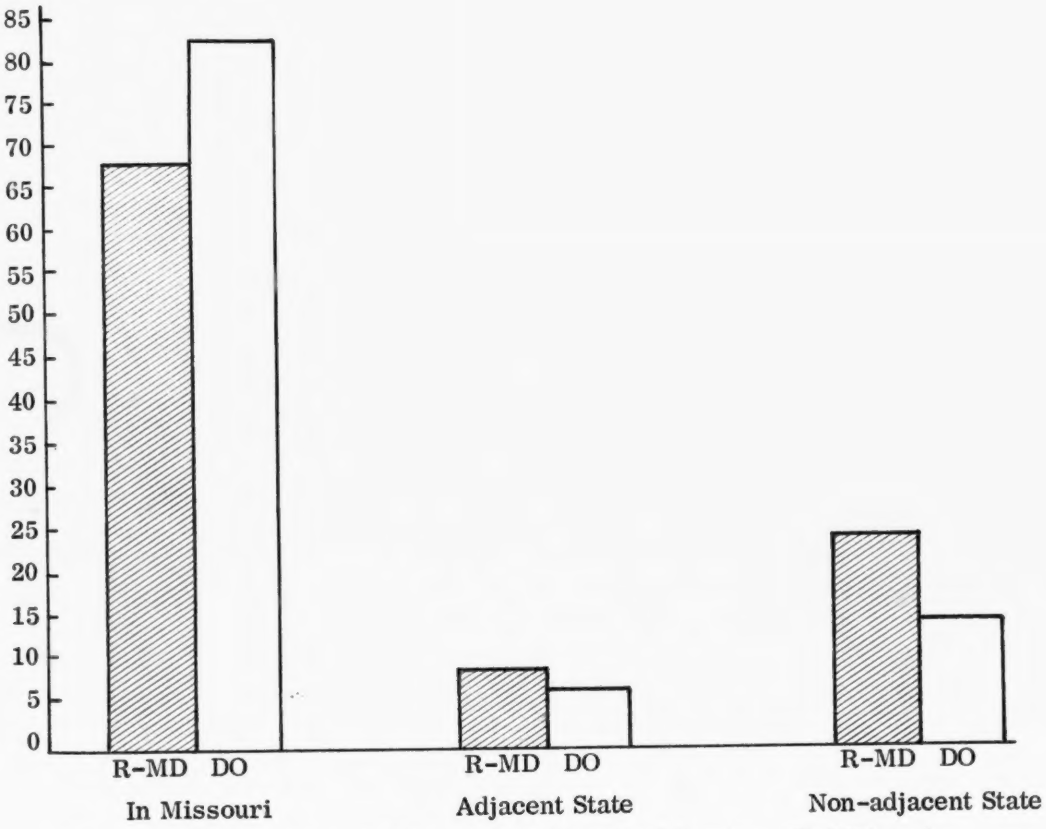


Fig. 5.6 - Place of Internship for Rural Medical Doctors (R-MD) and Osteopathic Doctors (DO).

Metropolitan General Practitioners. About 28 percent of the metropolitan general practitioners attended undergraduate college in Missouri and slightly more (33 percent) in Kansas. As with the earlier years place history, and for the same reason, Missouri and Kansas were considered the "home" state for metropolitan physicians.[23] Only 3 physicians (6.5 percent) reported the place of their principal undergraduate college to be a state adjacent to Missouri other than Kansas. The principal undergraduate school of almost one-third was a state not adjacent to Missouri; these states were scattered far and wide. One physician's undergraduate school was in a foreign country and one reported not attending undergraduate college. One-half attended public universities or colleges, 43 percent, private colleges and 5 percent, junior colleges; 1 attended outside the U.S.

Kansas University was the undergraduate college of more metropolitan general practitioners (11) than any other. The University of Missouri was second with 4, and Baylor University was the principal undergraduate college of 2 physicians.

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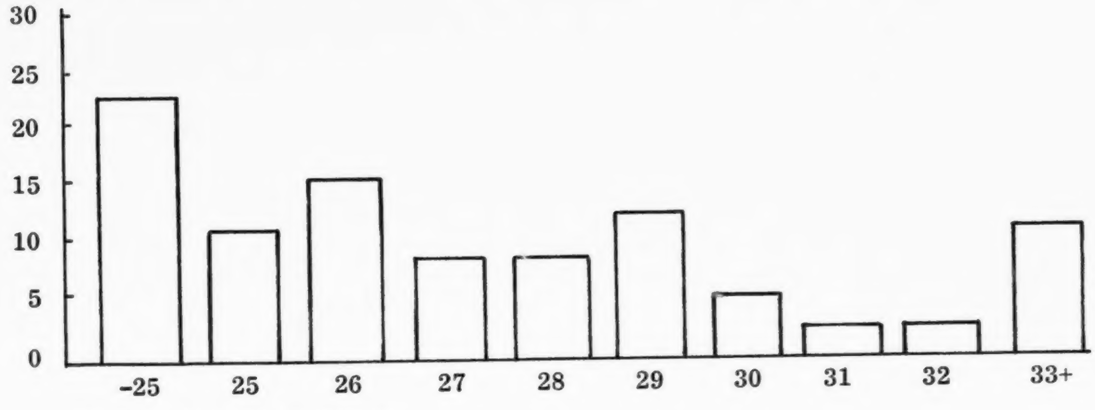
Rockhurst (Kansas City, Mo.), Lincoln University (Jefferson City, Mo.), and Missouri Valley College (Marshall, Mo.) were the only other schools that were reported by more than one physician in the sample.

Seventy-eight percent of the metropolitan physicians in general practice entered medical school directly from undergraduate college and 87 percent completed medical school without interruption. Kansas University Medical School was by far the most frequent choice (15), followed by Washington University of St. Louis (5), Meharry Medical College of Nashville Tennessee (5), St. Louis School of Medicine (4), Creighton School of Medicine (4), The State University of New York (2). No other school of medicine was represented by more than one physician in the sample.

Fifty-three percent of the physicians graduated from schools in the "home states" of Missouri and Kansas. Thirty percent graduated from schools in states adjacent to Missouri other than Kansas, and 17 percent from states not adjacent to Missouri.

The age distribution of physicians at the time of graduation from medical school is indicated in Figure 5.7.



*No age for one physician

Fig. 5.7 - Age of Metropolitan General Practitioners When Graduated from Medical School.

More than two-thirds of the physicians in the metropolitan general practitioner sample had interned in Kansas City hospitals. Three physicians had interned in another place in Missouri (St. Louis).

Figure 5.8 indicates the age at which metropolitan general practitioners completed their internship.

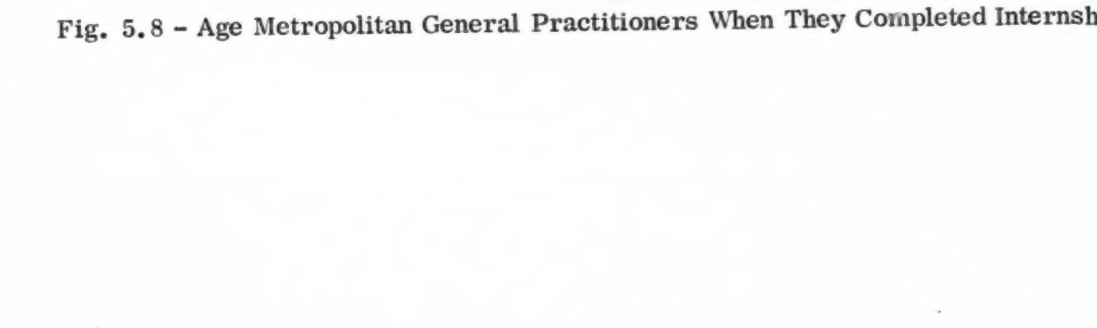


Fig. 5.8 - Age Metropolitan General Practitioners When They Completed Internship.

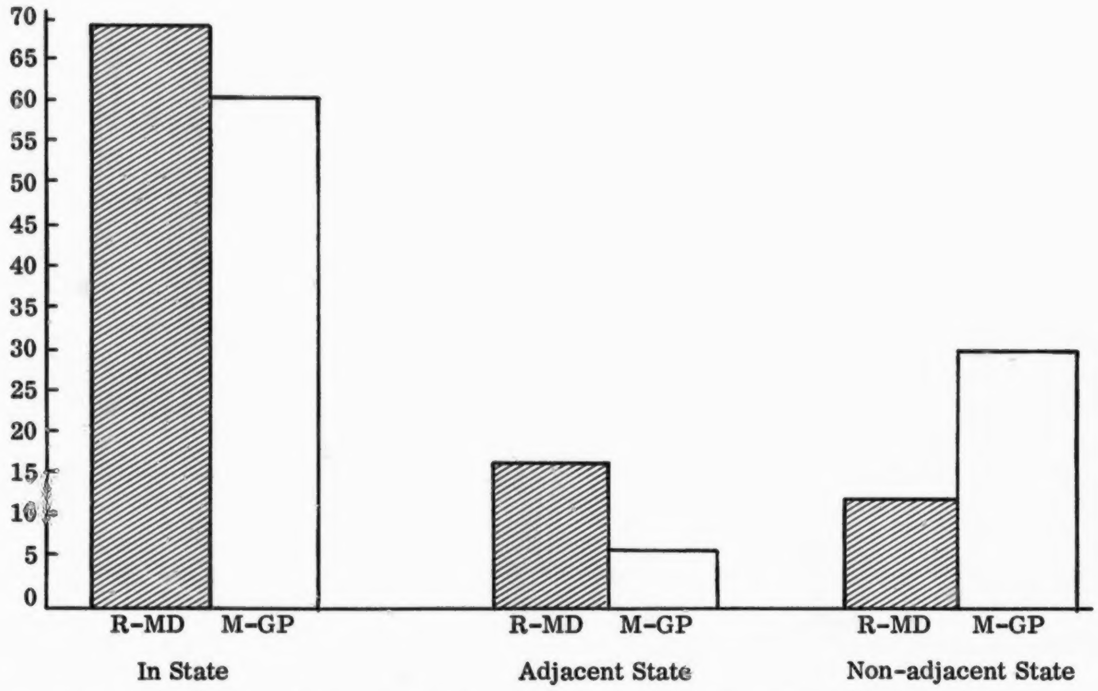
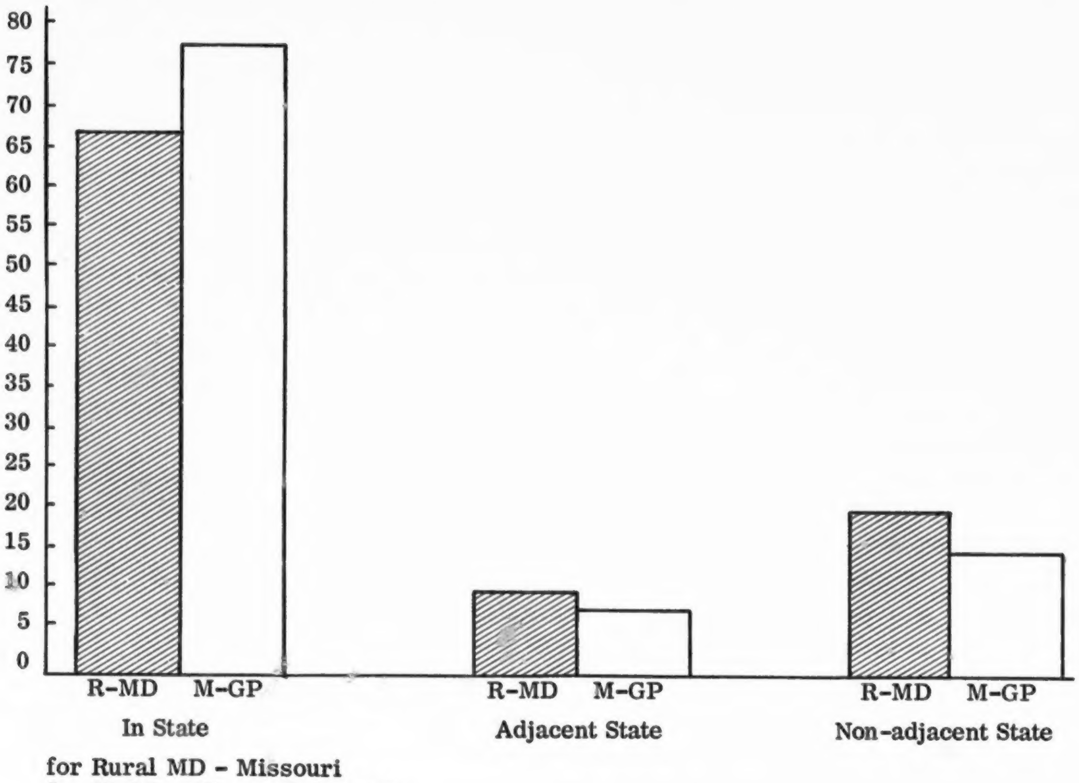


Fig. 5.9 - Place of Principal Undergraduate College for Rural Medical Doctors (R-MD) and Metropolitan General Practitioners (M-GP).



for Rural MD - Missouri
for M-GP - Missouri-Kansas

Fig. 5.10 - Place of Internship for Rural Medical Doctors (R-MD) and Metropolitan General Practitioners (M-GP).

Comparison of Rural Medical Doctors and Metropolitan General Practitioners. More of the rural medical doctors had attended undergraduate college within the borders of Missouri than Kansas City general practitioners had attended within the Missouri-Kansas area. But in both cases "local" undergraduate college was the rule.

About equal proportions of physicians in the rural and metropolitan area graduated from medical schools in the home state (Missouri for rural area, Missouri-Kansas for the metropolitan area). The proportions graduating from non-adjacent states were somewhat different.

While internship for both rural and metropolitan physicians was likely to be within the state, the rural doctors were more likely to have interned in St. Louis; those in the metropolitan area, in Kansas City. It is also noted that eight of the rural doctors did not intern while this was true for only one of the metropolitan general practitioners. This difference cannot be attributed to age difference because the two groups have similar age structures.

The ages for finishing medical school and internship was not significantly different for the two categories of physicians.

Metropolitan Specialists. The pattern of undergraduate colleges of the specialists was similar to that of the general practitioners. About one-fourth attended a college in Missouri and 43 percent attended a college in Kansas. Only two attended an undergraduate college in a state adjacent to Missouri other than Kansas and about one-fourth attended in non-adjacent states, including two in foreign countries. Sixty-five percent had attended a public school; 28 percent, private colleges; and 7 percent, junior colleges.

As with the general practitioners, Kansas University was the principal undergraduate college of more Kansas City specialists than any other by a wide margin. Fifteen had attended Kansas University; the next school in number was the University of Missouri with 5, followed by Kansas City Junior College, 3, and Kansas State University with 2. The other 22 physicians had all attended different undergraduate schools.

For 85 percent of the specialists, medical school was entered directly from undergraduate college; and, for 87 percent medical school was not interrupted. The University of Kansas Medical School was the place of training for 16 (34 percent) of the physicians. Three received medical degrees from Northwestern University and two each from Washington University (St. Louis), St. Louis University, Meharry, Rush Medical College, Harvard University, University of Pennsylvania, and Johns Hopkins.

About 45 percent of the specialists graduated from schools in the "home states" of Missouri and Kansas. As has been indicated, most of these were from the University of Kansas. Almost one-fourth were graduated from schools in states adjacent to Missouri other than Kansas, and a somewhat higher proportion (28 percent) in states not adjacent to Missouri. Two doctors were graduated from medical schools in foreign countries.

The age distribution of metropolitan physicians at the time of graduation from medical school is shown in Figure 5.11.

About 30 percent of the specialists had interned in Kansas City hospitals; 13 percent had interned elsewhere in Missouri or Kansas. Almost half of the specialists had interned in states not adjacent to Missouri.

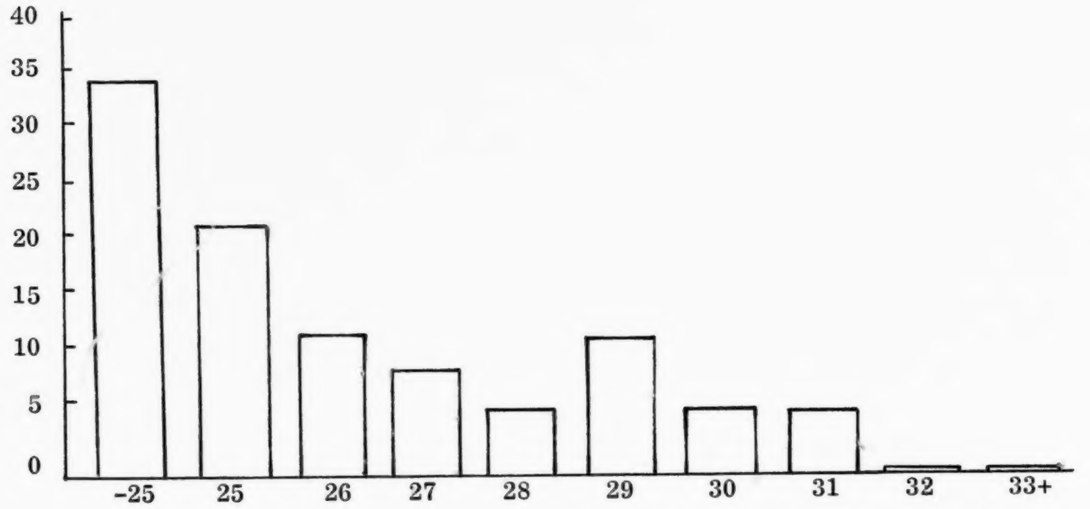


Fig. 5.11 - Age at Which Metropolitan Specialists Completed Medical School.

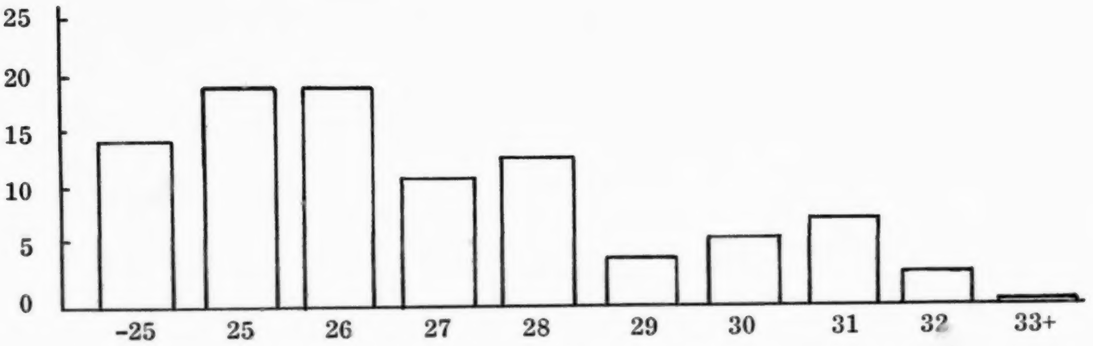


Fig. 5.12 - Age at Which Metropolitan Specialists Completed Internship.

Comparison of Rural Medical Doctors and Metropolitan Specialists. A very high proportion of the metropolitan specialists had attended undergraduate college in the 2-state area. This corresponded closely with the high proportion of rural medical doctors who had attended school in the state. A somewhat larger proportion of the specialists had attended undergraduate colleges in states not adjacent to Missouri, giving some indication of less localism. The pattern is indicated in Figure 5.13; the difference was not statistically significant.

Location of medical school with reference to state was not greatly different for rural medical doctors and metropolitan specialists. The metropolitan specialists depended heavily upon the University of Kansas for medical training and the rural medical doctors, on St. Louis schools.

There was a difference in place of internship with regard to state for metropolitan specialists and rural medical doctors which was statistically significant. The difference resulted (Figure 5.14) from the larger proportion of metropolitan specialists who interned in states not adjacent to Missouri and the larger number of rural medical doctors who interned in the state.

Metropolitan specialists and rural medical doctors did not differ significantly in the age at which they completed medical school and internship.

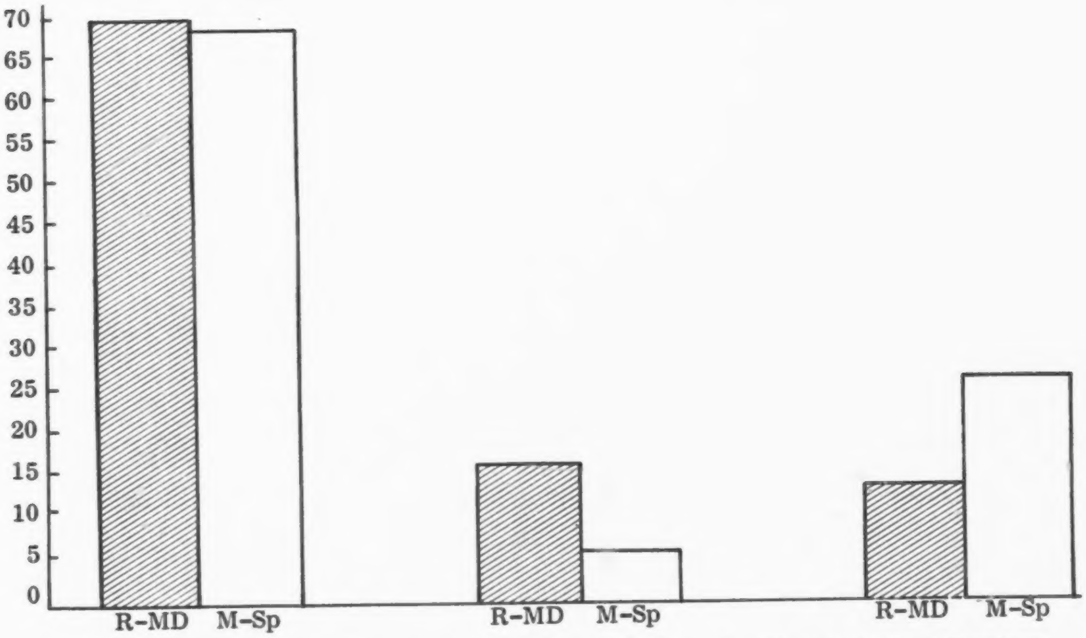


Fig. 5.13 - Place of Principal Undergraduate College for Rural Medical Doctors (R-MD) and Metropolitan Specialists (M-Sp).

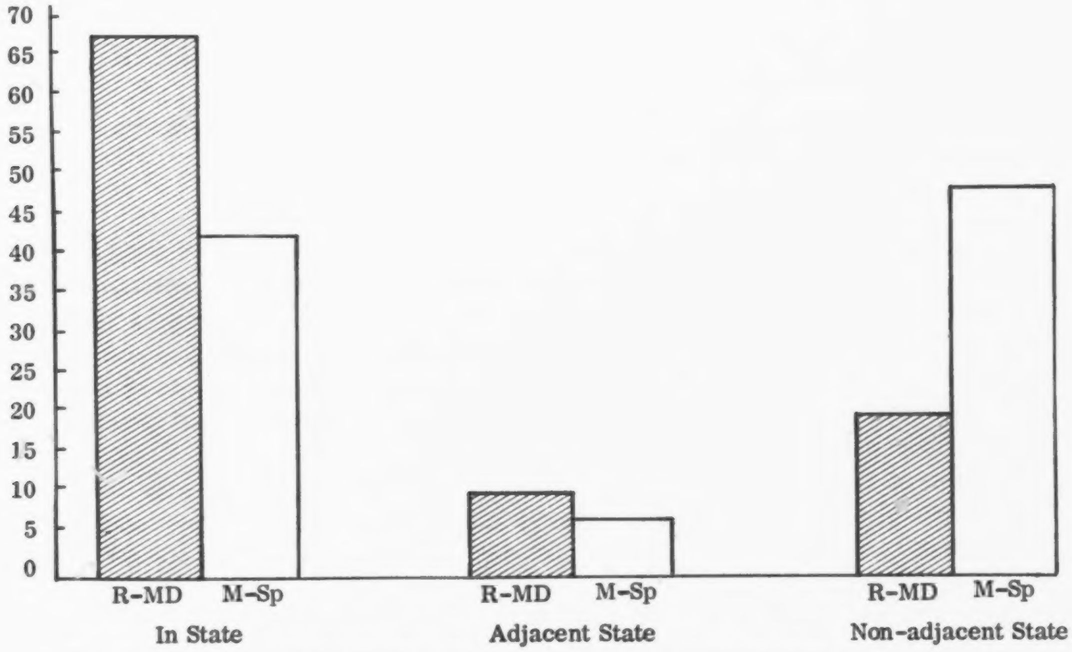


Fig. 5.14 - Place of Internship of Rural Medical Doctors (R-MD) and Metropolitan Specialists (M-SP).

SUMMARY OF CHI SQUARE ANALYSES FOR THE TRAINING YEARS

	X^2	d.f.	signif.[1]
Rural Medical Doctors and Osteopathic Doctors			
Principal Undergraduate College with Reference to State	11.2	2	**
Professional School with Reference to State	39.6	2	**
Age Completed Professional School	7.8	4	**
Place of Internship with Reference to State	2.7	1	-
Age Completed Internship	4.5	4	-
Rural Medical Doctors and Metropolitan General Practioners			
Principal Undergraduate College with Reference to State	6.3	2	*
Medical School with Reference to State	0.1	2	-
Age Completed Medical School	2.8	4	-
Place of Internship with Reference to State	1.3	2	-
Age Completed Internship	1.8	4	-
Rural Medical Doctors and Metropolitan Specialists			
Principal Undergraduate College with Reference to State	5.2	2	-
Medical School with Reference to State	2.2	2	-
Age Completed Medical School	2.5	3	-
Place of Internship with Reference to State	8.7	2	*
Age Completed Internship	2.5	3	-

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[1] (-) = Not Significant at the 5 percent level.
* = Significant at the 5 percent level.
** = Significant at the 1 percent level.

Summary and Conclusions. In the analysis, we have centered our attention on the place history in relation to present locations. To a large extent, training institutions take students away from rural areas and into the complexity of large organizations in urban settings. This is progressively truer as students advance through their training from undergraduate school to medical school, to internship, and, for some, to a residency.

To some extent, rural physicians could attend undergraduate college in or near the area in which they were practicing, and preceptorship programs may acquaint the medical student with rural situations. But by and large, medical training inducts the student into a complex situation associated with the urban world and training centers by virtue of their needs are most often located in an urban area. Efforts that run counter to this, such as the location of a medical school in a relatively rural setting, are done at certain costs and do not alter, basically, the complex organization into which the medical student enters.

For both rural and metropolitan medical doctors in the study, the undergraduate years were concentrated in "home-state" schools. Osteopathic doctors were more likely to have attended undergraduate college elsewhere. The place of undergraduate training was further localized in that rural medical doctors were likely to have attended college in central Missouri schools and the metropolitan doctors depended heavily on Kansas University. If they had not attended home state undergraduate schools, it appeared that metropolitan physicians were more likely than rural medical doctors to have attended in non-adjacent states. Although this difference was not statistically significant, it supports the idea that the experience of metropolitan doctors was less local.

A substantial number of the metropolitan doctors attended medical school in the environs of Kansas City by attending the University of Kansas School of Medicine. A very high proportion (3/4) of the metropolitan general practitioners had interned in Kansas City; this was not true for the specialists. These training contacts with place of practice could not occur for those practicing in the rural areas.

CHAPTER VI

Place History - Career Locations

The place history of physicians practicing in a 20-county area of nonmetropolitan Missouri has been traced from the time of birth through internship. In the section to follow, career locations of the physician will be considered.

Career locations involve personal choices that are not operative in the earlier locational history (no one asks the individual where he would like to be born, or to start school for that matter). As one advances in his career, the choices become more and more his own. Physicians appear to have greater control over choice of locations than members of most other occupations in that the profession is an independent one and demand for services is high in all areas. In this section, therefore, we have tried to probe some of the reasons for locational choice of physicians.

Rural Medical Doctors. Perhaps one of the clearest things that can be said about the medical doctors in the area is that they are not geographically mobile in their career locations. Fully 60 percent had not moved from their original place of practice, and 89 percent had practiced in no more than two places.

Time was related to the number of moves made by medical doctors. The youngest doctors were most likely to be in their original place of practice (86 percent), the eldest least likely (28 percent). However, doctors 55-64 years of age were somewhat more likely to be in their first place than those 45-54 years of age. Only two of the eight doctors that had practiced in as many as three places were younger than 65 years. (Appendix Table 6.1). The medical doctors practicing in the area entered private practice at a relatively young age--almost half before or at age 28; and 86 percent before or at age 32.

It had been the intention of this analysis to follow the physicians place by place through the career years. Due to their low mobility during the career years, this task was largely accomplished by considering only two points: first location and present location. This accounted for all the career locations of 89 percent of the medical doctors.

Seventeen percent of the medical doctors had started practicing in places with less than 500 population, and about one-half in places of less than 2,500 population.

TABLE 6.1 - NUMBER OF PLACES IN PRIVATE PRACTICE FOR RURAL MEDICAL DOCTORS

Number of Places in Private Practice	Number of Rural Medical Doctors	Percent of Rural Medical Doctors
1	43	60.6
2	20	28.2
3	6	8.4
4	--	---
5	1	1.4
6	1	1.4

Few began in places of 10,000 or more. The older doctors were more likely than the younger doctors to have first practiced in the smallest places. Ten of the 12 physicians who had begun practice in places with less than 500 population were 65 or older. It was unlikely for medical doctors in the two younger age categories to have started practice in a place as small as 1,000 (4 out of 40). The few beginning practice in metropolitan sized places (50,000 or more) were scattered among the age categories- one in each category with the exception of the oldest which had 3. (Appendix Table 6.2).

TABLE 6.2 - SIZE OF PLACE OF FIRST PRACTICE OF RURAL MEDICAL DOCTORS

Size	Number	Percent
-500	12	16.9
500 - 999	7	9.9
1,000 - 2,499	17	23.9
2,500 - 9,999	26	36.6
10,000 - 24,999	3	4.2
25,000 - 49,999	--	---
50,000 - 99,999	1	1.4
100,000 +	5	7.0

Medical doctors were asked why they came to their first place of practice. A rather long list of reasons was given ranging over such areas as home town, financial reasons, efforts of the medical society and availability of hospital facilities. The reason most commonly mentioned was home town and/or family and friends. More than one-third of the doctors gave a reason of this kind. This type of response connects the conscious choice of location with the already demonstrated connection between career location and youth location.

Other doctors appear to have had an influence on the first location of the medical doctors practicing in the area. Eleven percent reported that the location was recommended by another doctor; a partnership agreement with another doctor was reported as an influence by 10 percent.

Efforts to obtain physicians by the community did not appear to be very important. For example, only 5 doctors volunteered the information that they were influenced in locating in their first place of practice by information obtained through the state medical society.

Physicians were questioned directly on two points, (1) did the community contact them before they took up their first practice and (2) did they know anyone in the community before coming to the community. The response to the first question was largely negative, only 6 of the medical doctors reported that the community had made an effort to attract them.

A sizeable proportion (61 percent) of the medical doctors reported knowing someone in their first place of practice before going there. The largest proportion (35 percent) had family members in the community; 21 percent had friends; 17 percent knew other doctors; and 3 percent knew other professional persons. The proportions do not represent categories that are mutually exclusive and thus add to more than 61 percent that knew someone before coming to the first place of practice.

Physicians consciously associate home town and family relations with locating in a given place. It would seem that this is a strong influence in their choice of location.

The categories of reasons for coming to a place conceal the complexity and flavor of the responses. One man, for example, said he wanted a small town with a hospital. Information of such a place was received from the state medical association placement bureau and the town had further appeal in that it was located about midway between his wife's parents and his own family.

Another said he liked the size of the town and wanted to be close to his dad who was in poor health, and another, that his father influenced him and "after the war I just wanted to come home." A doctor locating in the 1930s said, "it was my home I was offered the position and I was broke." Another doctor who came to his place of practice during the depression said: "My family had to eat; I bought another doctor out who wanted to leave; a doctor friend had heard about this place and called me."

Several reported coming to gain experience; for example, "chose a small place to have less responsibility, intended to leave after a year [but he remained]."

One doctor said he investigated 7 communities listed by the medical association. He was attracted to this place by the personalities of people in town and also by the hospital facilities and recreational facilities.

Another wanted to be a general practitioner in order to have more "people contact." He wanted a small town in the midwest with proximity to the medical school and contact with other doctors. Similarly, another said simply that he wanted a rural place close to a city. And another wanted a county seat town and a separate practice.

Since the first and present place of practice are identical for 60 percent of the physicians there is much overlap in the present section and the previous one. A somewhat larger proportion had started in places smaller than 500 than were presently practicing in places that size (17 percent and 6 percent). Because, for a majority, the first place was the present place of practice the responses to the questions on reasons for coming to the first practice and present practice are much the same. Twenty-four of the 71 medical doctors reported that home town or family relationships were a reason for coming to the place of their present practice. Other reasons were very similar for first practice and present practice. Some came to the place of their present practice to expand -- a reason not given for the first practice -- and more indicated that the availability of hospital facilities was a reason for present location. On the other hand, "to further education and experience" was a reason given for locating in the place of first practice that did not appear as a reason for location of present practice.

Forty-four of the 71 medical doctors (62 percent) knew someone in their present place of practice before going there to practice. Twenty-three or 32 percent reported having family members in the place; 19 or 27 percent reported friends; 12 or 17 percent knew other physicians; and one (1 percent) knew another professional person. The percentages total more than the 62 percent that knew someone because some physicians reported knowing persons in more than one of the categories.

Medical doctors were divided according to those who had practiced in only one place and those who had practiced in two or more places. The reasons for coming to their present place of practice were then considered. The reason, home town or family, was much more likely for those practicing in only one place (42 percent) compared with those practicing in two or more places (21 percent). To replace *another doctor* was a reason more often given by doctors that had practiced in more than one place, as was *expanding practice.*

The final question in this series was: Do you expect to remain in this place? The following responses were made:

Almost sure to stay	66.2 percent
Probably will stay	19.7 percent
Uncertain	8.4 percent
May move	2.8 percent
Almost certainly will move	2.8 percent

The youngest physicians were least likely (53.6 percent) to say that they were "almost sure to stay" and the oldest physicians were most likely (94.4 percent) to say this. Of the 10 physicians that were in the last three categories, six were under 45 years of age. The two physicians who said they were almost certain to move were in the youngest age category.

The size of place was also related to likelihood of moving--45.4 percent of those in places under 1,000 population indicated they were almost sure to remain; while 83.3 percent in places 5,000 or over gave this response. Those in places of 2,500 to 4,999 were not more likely than those in places of 1,000 to 2,499 to say that they would almost surely stay in their present place of practice.

Osteopathic Doctors. About 40 percent of the osteopathic physicians had not moved from their first place of practice; about one-third had practiced in three or more places.

Osteopaths in the area under 45 years of age were somewhat more likely to have practiced in a single location but in all age categories they tended to have practiced in several places.

Almost one-fourth of the osteopathic physicians practicing in the area had entered practice before they were 25 years old and over half before or at 27 years of age. On the other hand 18 percent were 33 or older when they began private practice.

Almost 29 percent of the osteopathic physicians started practice in places of less than 500 population. Almost half of those now practicing in the area had started practice in places of less than 1,000 population; and almost two-thirds had begun practice in places with less than 2,500. Only 10 of the 80 osteopathic physicians started practice in places as large as 10,000 population. Of these, six had first practiced in places of metropolitan size (50,000 or over).

Starting practice in a place of fewer than 500 was common for osteopathic physicians in all categories with the exception of those 65 or older. In each of the two younger age categories, 30 percent or more had started practice in a place of less than 500 population and more than 50 percent had started in a place of less than 1,000 population. Only one of the six physicians who had started practice in a metropolitan area (50,000 or more) was 55 or older.

The most common reason mentioned by osteopathic physicians for choosing their first place of practice was that it was their home town and/or they had family members in that location (22 percent). Other reasons mentioned by 10 percent or more were: financial, to replace another doctor specifically, and to fill a general opening. A large number gave reasons categorized as "other." The "other" reasons tended to be peculiar to the individual such as: "liked the looks of the town when I

TABLE 6.3 - NUMBER OF PLACES IN PRIVATE PRACTICE FOR OSTEOPATHIC DOCTORS

Number of Places in Private Practice	Number of Osteopathic Doctors	Percent of Osteopathic Doctors
1	31	38.8
2	23	28.8
3	13	16.2
4	9	11.2
5	2	2.5
6	1	1.2
7	1	1.2

TABLE 6.4 - SIZE OF PLACE OF FIRST PRACTICE FOR OSTEOPATHIC DOCTORS

Size	Number	Percent
-500	23	28.8
500 - 999	15	18.8
1,000 - 2,499	14	17.5
2,500 - 9,999	17	21.3
10,000 - 24,999	3	3.8
25,000 - 49,999	1	1.2
50,000 - 99,999	1	1.2
100,000 +	5	6.3
Not in U.S.	1	1.2

drove through," "always felt it was divine providence;" " to limit work because of illness;" "friend asked me to cover for him while he was on vacation."

As with medical doctors, efforts to obtain osteopathic doctors by communities did not have much influence on their choice of location. When osteopathic doctors were questioned directly as to whether the community had contacted them, 10 percent reported they had been contacted.

A second direct question was, "Did you know anyone in your first place of practice before going there?" Forty-four percent of the osteopathic physicians reported they did know someone--23 percent had friends, 21 percent had family members, 11 percent knew physicians or other professional persons.

As was pointed out, osteopathic physicians in the area had moved about to some extent. The relation of size of place of first practice to present practice may be instructive. About 29 percent had started in places with less than 500 population; at the time of the study 20 percent were in places that size. Thirty-four percent had started, compared with 40 percent presently practicing, in places of 2,500 or more. Thus, while there had been considerable movement, the change in size of place had not been great.

The reasons reported for coming to the present place of practice were similar to those for the first place. A few more in the present place of practice reported replacing another doctor or having the place recommended by another doctor and three reported coming to their present place of practice in order to expand their practice.

Almost 59 percent of the osteopathic physicians reported knowing someone in their present place of practice before going there. Nineteen percent had family members in the place of present practice; 34 percent had friends; and 15 percent reported knowing other physicians. The percentages total more than the 59 percent that knew someone because some physicians reported acquaintances in more than one category.

When osteopathic physicians were divided according to those who had been in only one place and those who had been in two or more places, some differences were found. Those who had been in a single place were more likely to give home town and/or family as a reason for location than those practicing in two or more places. Financial reasons and expansion of practice were also given more frequently as reasons for present location by those who had moved at least one time.

The following responses were made to the question: Do you expect to remain in this place?

Almost sure to stay	70.0 percent
Probably will stay	12.5 percent
Uncertain	7.5 percent
May move	2.5 percent
Almost certainly will move	7.5 percent

The youngest osteopathic doctors were the least likely (60.0 percent) to say that they were almost sure to stay in their present location; the oldest doctors were most likely (88.9 percent) to say this. Of the 14 physicians in the last three categories, 7 were less than 45 years old and 12 were under 55.

In terms of size of place, those in centers of 2,500 or over were more likely to say that they were almost sure to stay. This response was equally common for those in places of less than 1,000 and 1,000 to 2,499. Eight of the 14 doctors in the last three categories (uncertain, may move, almost certainly will move), were in places of less than 1,000 population.

Comparison of Career Locations for Medical Doctors and Osteopathic Doctors. Osteopathic doctors moved more during their career years than did medical doctors. Figure 6.1 indicates the difference in graphic form which is significant by chi square test. When age was controlled at under 55 years and 55 years and older it was found that the difference was almost entirely among the younger physicians.

The size of place of first practice was also statistically different for medical doctors and osteopathic doctors. Here again the younger doctors contributed most to that difference.

For both categories of physicians, the reason most often given for locating in their first place of practice was, home town, family, and/or friends. The difference on this response was not statistically significant when all the physicians were considered but it was different for those 55 or over with osteopathic doctors giving this response less often.

The greater home town influence on medical doctors was confirmed by the relative proportions who knew someone in their first place of practice before going there -- 61 percent to 44 percent.

Home town, friends, and/or family was given as reason for coming to the present place more often than any other by both medical doctors and osteopathic doctors. The difference between the two types of physicians was not great enough to

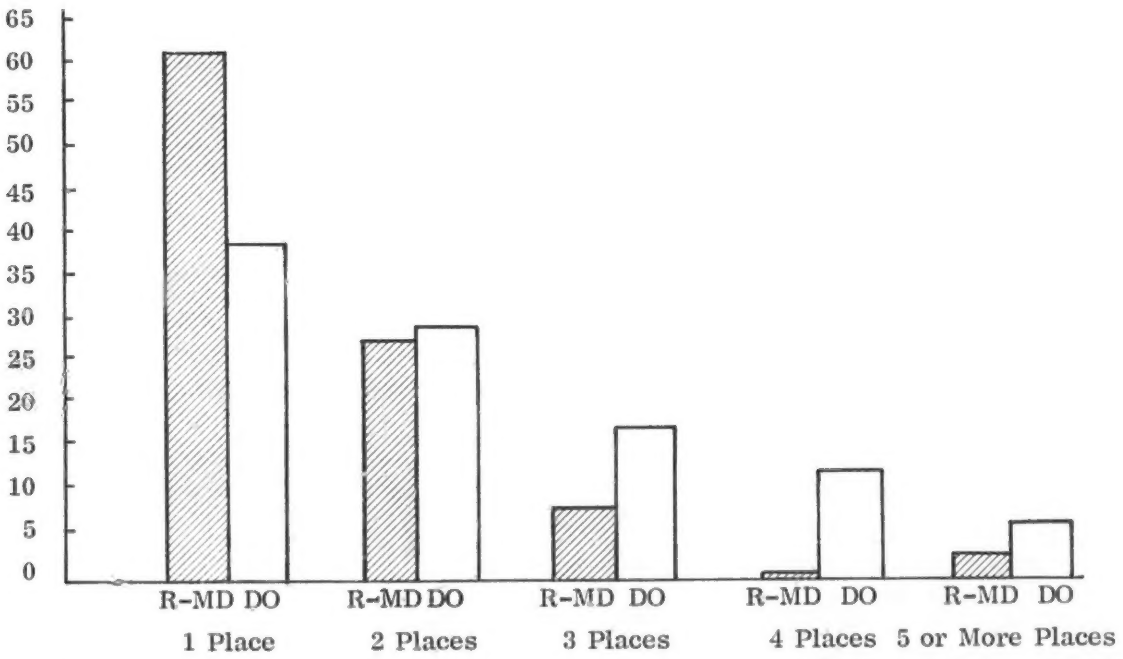

Fig. 6.1 - Number of Places in Private Practice for Rural Medical Doctors (R-MD) and Osteopathic Doctors (DO).

be statistically significant. Also, a large and almost equal proportion of medical doctors and osteopathic doctors reported knowing someone in their present place of practice before coming there. The difference between the two types of physicians was not statistically significant for this comparison. In this connection, medical doctors reported having relatives in the place more often than osteopathic doctors did.

Intention of moving was not expressed any more frequently by osteopathic doctors than by medical doctors. This was not changed when age was controlled.

Metropolitan General Practitioners. The general practitioners in the Kansas City sample had for all practical purposes started, continued, and, it is safe to predict, will end their practice in a single location. Eighty-five percent had not practiced in any place except Kansas City and an additional 9 percent had practiced in only one other place. This does not mean that there was no moving about within the metropolitan area.

The relationship of age to number of places of practice is not meaningful because there were so few moves by doctors of any age.

The size of the place of first practice of course reflects the facts that most of the general practitioners in Kansas City had started practice there. Therefore, 85 percent started in a place of 100,000 population or more.

Because first practice and present so closely coincide, we shall consider immediately the present practice. The reason given by the most general practitioners for coming to Kansas City was that it was their home town and/or they had family and friends there. The second most common reason was that they remained after internship because of relationships made during that period. Indeed, many of the friendships resulted from associations during the training years.

TABLE 6.5 - NUMBER OF PLACES OF PRIVATE PRACTICE FOR METROPOLITAN GENERAL PRACTITIONERS

Number of Places in Private Practice	Number of Physicians	Percent of Physicians
1	40	85.1
2	4	8.6
3	1	2.1
4	2	4.2

The great majority (87 percent) knew someone in Kansas City before starting practice there. More than one-third had family members and relatives in the city, one-fourth mentioned friends, and one-third mentioned other physicians and 6 percent, other professional people.

Reflecting the stability of the physicians in the metropolitan area, 96 percent said they were almost sure to stay in their present place of practice with the remaining two physicians saying they probably would stay.

Comparison of Career Locations of Rural Medical Doctors and Metropolitan General Practitioners. As noted previously, rural medical doctors showed little geographical mobility after entering practice. This was even more true of the metropolitan doctors. The difference was statistically significant and was greater among older physicians. Since the first place and the present place of practice were the same for the majority of both groupings of physicians and difference in size of place of present practice was a principal criterion for selecting the physicians, the size of the first place was different for the two residence-types of physicians at a very high level of probability.

Personal influence was cited as the most important reason for choosing a place by both rural and metropolitan physicians. There was no statistical difference between them on this point. Direct questioning revealed that more of the metropolitan general practitioners than rural medical doctors had known someone in their first and present places of practice before starting practice there. It was apparent that a number of these acquaintances were from among those contacted during the training years.

Although most of the rural doctors did not anticipate moving, they were more likely to state this intention than were the metropolitan general practitioners.

Metropolitan Specialists. As with the general practitioners in Kansas City, a very high proportion (83 percent) of the specialists had not practiced elsewhere. Because this is so overwhelmingly the case, nothing can be said about the relationship of mobility and age.

Since the great majority of specialists in Kansas City have practiced only in that city, it of course follows that the size of place of first practice was over 100,000 population for most of the physicians.

Personal influence of home town and/or family and friends was cited as a reason for locating in Kansas City by more than half of the physicians. No other reason was cited nearly so often. Opportunity to practice a specialty was the second most common reason (10 percent).

With only two exceptions, all the specialists knew persons in Kansas City before

TABLE 6.6 - NUMBER OF PLACES OF PRIVATE PRACTICE FOR METROPOLITAN SPECIALISTS

Number of Places in Private Practice	Number of Physicians	Percent of Physicians
1	39	83.0
2	4	8.5
3	2	4.3
4	2	4.3

going there to practice. More than half mentioned relatives; about the same proportion indicated friends, and more than one-third said other physicians. Forty of the 47 (85 percent) specialists said they were almost sure to stay in Kansas City, three more (6 percent) indicated they probably would stay, one was uncertain, one almost certain to move, and two did not answer.

Comparison of Rural Medical Doctors and Metropolitan Specialists. In terms of career locations and mobility, the metropolitan specialists were very similar to the metropolitan general practitioners and therefore showed greater stability in location than the rural medical doctors. Also, the size of the place of their first practice differed greatly from that of rural medical doctors.

Metropolitan specialists were more likely than rural medical doctors to have known someone in their first place and present place of practice (for the large majority it was one and the same) before taking up practice there. Although the specialists cited family members more often, they also cited other physicians more often, indicating, probably, contacts made during the training years.

Although the rural medical doctors did not indicate a high intention of moving from their present location, the metropolitan physicians showed even less inclination along these lines -- a difference that was significant at the 5 percent level.

SUMMARY OF CHI SQUARE ANALYSES OF CAREER LOCATIONS (continued)

	X^2	d.f.	signif.[1]
Rural Medical Doctors and Rural Osteopathic Doctors			
Number of Places of Practice	11.2	2	**
Under 55 Years	10.4	1	**
55 Years and Over	0.5	1	-
Size of Place of First Practice	8.2	3	*
Under 55 Years	23.2	2	**
55 Years and Over	4.0	2	-
Reasons for Coming to First Place:			
Home Town and/or Relatives, Friends	3.7	1	-
Under 55 Years	0.3	1	-
55 Years and Over	5.1	1	*
Knew Someone in First Place of Practice	4.3	1	*
Age Came to Present Place of Practice	3.8	3	-
Reasons for Coming to Present Place of Practice	2.4	1	-
Knew Someone in Present Place of Practice	0.3	1	-
Had a Family Member in Present Place of Practice	3.7	1	-
Likelihood of Remaining in Present Location	0.2	1	-
Under 55 Years	1.8	1	-
55 Years and Over		(Not Enough Cases for X^2 Test)	
Rural Medical Doctors and Metropolitan General Practitioners			
Number of Places of Private Practice	8.5	2	*
Under 55 Years	1.8	1	-
55 Years and Over	7.8	1	**
Size of Place of First Practice	77.8	2	**
Under 55 Years	39.9	2	**
55 Years and Over	39.0	2	**
Reasons for Coming to First Place of Practice:			
Home Town and/or Relatives and Friends	0.0	1	-
Knew Someone in First Place of Practice	4.2	1	*

TABLE 6.6 - NUMBER OF PLACES OF PRIVATE PRACTICE FOR METROPOLITAN SPECIALISTS

Number of Places in Private Practice	Number of Physicians	Percent of Physicians
1	39	83.0
2	4	8.5
3	2	4.3
4	2	4.3

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Comparison of Rural Medical Doctors and Metropolitan Specialists. In terms of career locations and mobility, the metropolitan specialists were very similar to the metropolitan general practitioners and therefore showed greater stability in location than the rural medical doctors. Also, the size of the place of their first practice differed greatly from that of rural medical doctors.

Metropolitan specialists were more likely than rural medical doctors to have known someone in their first place and present place of practice (for the large majority it was one and the same) before taking up practice there. Although the specialists cited family members more often, they also cited other physicians more often, indicating, probably, contacts made during the training years.

Although the rural medical doctors did not indicate a high intention of moving from their present location, the metropolitan physicians showed even less inclination along these lines -- a difference that was significant at the 5 percent level.

SUMMARY OF CHI SQUARE ANALYSES OF CAREER LOCATIONS (continued)

Age Came to Present Place of Practice	0.9	3	-
Reason for Coming to Present Place of Practice:			
Hometown and/or Relatives and Friends	0.9	1	-
Knew Someone in Present Place of Practice	8.4	1	**
Had a Family Member in Present Place of Practice	0.1	1	-
Likelihood of Remaining in Present Location	14.4	1	**
Under 55 Years	13.1	1	**
55 Years and Over		(Not Enough Cases for X^2 Test)	
Rural Medical Doctors and Metropolitan Specialists			
Number of Places of Private Practice	7.6	2	*
Under 55 Years	0.1	1	-
55 Years and Over	9.5	1	**
Size of Place of First Practice	74.2	2	**
Under 55 Years	44.6	2	**
55 Years and Over	33.6	2	**
Reason for Coming to First Place of Practice:			
Home Town and/or Relatives and Friends	3.7	1	-
Knew Someone in First Place of Practice	5.4	1	*
Age Came to Present Location	5.9	3	-
Reasons for Coming to Present Place of Practice:			
Home Town and/or Relatives and Friends	4.4	1	*
Knew Someone in Present Place of Practice	16.7	1	**
Had Family Members in Present Place of Practice	5.0	1	*
Likelihood of Remaining in Present Location	7.4	1	**
Under 55 Years	7.4	1	**
55 Years and Over		(Not Enough Cases for X^2 Test)	

+(-) = Not significant at the 5 percent level.
* = Significant at the 5 percent level.
** = Significant at the 1 percent level.

Summary and Conclusions. Is a rural practice a stepping-stone to urban practice? For some it may be in fact, for others it may be so intended, but for most it is neither the fact nor the intention. Most of the metropolitan doctors had practiced in no other place and the rural medical doctors showed few signs of geographical mobility. In both settings, few physicians indicated intentions of moving. Why is this so in a profession that has certain qualities permitting mobility (independence, high demand, general sanction to practice)? The fact is that an independent profession requires personal investment to build a practice which in turn creates an obligation to a clientele. The physician in the rural setting, as we have seen, becomes enmeshed in a complex of interpersonal relations in the community which in many cases he must find rewarding as well as obligating. The stepping-stone concept, furthermore, would seem to apply best in situations where a person must prove himself in a less demanding situation before entering a more demanding one with greater rewards. In this regard, the stepping-stones may be educational rather than locational. The route to specialization is clearly marked by educational criteria. When we look at the greater mobility of osteopathic physicians in connection with less clearly marked (and newer) specialization, the locational stepping-stone hypothesis makes more sense.

CHAPTER VII

The Practice in a Rural Area

We have considered the personal background of physicians in detail. Now we turn to the present in terms of work and community orientations. In this chapter, we shall concentrate on the work of the physician; in following discussions, non-work activities will be detailed; although, truly the two spheres cannot be separated. Data were not available for rural, urban comparisons on each point of information, but such comparisons as were possible were made.

Professional Decisions

The place history of physicians practicing in a selected area of rural Missouri has demonstrated the relationship between youth locations and career locations. Here we are concerned with the verbalization of the time and reasons for career decisions.

The questions asked were:

(1) When did you decide to be a physician?
(2) Why did you decide to be a physician?
(3) When did you decide to practice in a rural area?
(4) Why did you decide to practice in a rural area?

Rural Medical Doctors. Almost two-thirds of the rural medical doctors reported that they had decided on their profession by the time they had finished high school.[24] This included 20 percent who couldn't remember when they had not wanted to be a physician. These decisions may have seemed more firm at the time of the interviews than they were when made; because, if a choice is a happy one, alternatives may quickly be forgotten. About one in four made a selection during college and 6 percent had entered the labor market before making a decision. An example of the latter was the man who was teaching school when he decided to go to medical school. Three of the four physicians who reported making a selection after entering the labor market were over 65 years of age.

It was shown previously that a substantial number of medical doctors were sons of physicians. On asking for reasons for entering medicine, this was cited by a number of physicians. But the responses also revealed that other doctor-relatives were persons of influence. In fact, the latter were mentioned more often than fathers.

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[24] In a study of students at Kansas University (1957) it was found that 73 percent had made the decision to enter the medical profession by the time they had completed high school. Howard S. Becker et. al., Boys in White, University of Chicago Press, Chicago 1961, pp. 77-78. In another study of medical students, 47 percent had made a decision before age 18. Natalie Rogoff, " 'Youthful Deciders' Among Medical Students" in E. Gartly Jaco, Patients, Physicians and Illness, The Free Press, Glencoe Illinois, 1958, pp. 328-329.

Some of the "near verbatim" responses indicate the nature of these influences:

> Always wanted to be [a doctor]. Am a fourth generation M.D. - had to be.
>
> Father and Grandfather were M.D.'s.
>
> Father's example, went on calls with him.
>
> Father encouraged from childhood. Great uncle a doctor - I knew its meaning.
>
> Wanted to be of service to mankind--cousin was a doctor when I was in college.

Non-related physicians were also frequently mentioned as influencing the decision to become a doctor. This might have been an admired doctor in the community, a neighbor, or a contact resulting from illness.

> My father was a druggist. I grew up in the profession; was influenced by two doctors in town--never really considered anything else.
>
> Lived next door to a doctor for as long as I can remember.
>
> Influenced by the family physician.
>
> Childhood diseases made close relationship with an old M.D.

Personal influences were also offered by non-physicians. This was most likely to be a parent.

> Father would pay expenses if went to medical school.
>
> I thought I would like medicine and mother encouraged.
>
> Uncle paid medical school expenses -- father had graduated in pharmacy.

While the bulk of reasons given for entering the profession were personal influences, other general reasons were given. Among them quite often mentioned was aptitude and/or interest in science; also closely related to this was professional counseling to enter the field. Financial considerations and service motives were also mentioned.

The number reporting influences in each category is given in Table 7.1. Some of the replies were placed in more than one category, resulting in a cumulative percentage of more than 100.

When asked when they decided to practice in a rural area, more than one-fourth said they had never considered any other place. More than one in five made the decision at some other time before finishing medical school. For about one-third the decision was made during internship or immediately following; 6 percent decided during or after services and another 6 percent, during their first practice.

Personal background was given by a number of physicians as the reason for

TABLE 7.1 - WHY DID YOU DECIDE TO BE A PHYSICIAN? RURAL MEDICAL DOCTORS

Reason	Number	Percent
Father a Physician	8	11.3
Other Relative a Physician	14	19.7
Other Physician (not related)	14	19.7
Other Person (not a physician)	5	7.0
Liked the Study of Science and Medicine	8	11.3
Service Motive	6	8.5
Financial Reasons	5	7.0
Counseling	3	4.2
Worked in a Pharmacy	3	4.2
Always Wanted to Be	7	9.9
Other	4	5.6
Don't Know	2	2.8

choosing to practice in a rural area. This was expressed as home town or family ties and as having a rural background. Some of the replies tapped more than one reason and were classified in as many categories as appropriate.

> I was raised in this town, preferred rural to city and it is easier to get a start in practice [in a rural area].
>
> Was interested in my home town and wanted to practice general medicine.
>
> Took care of mother here; didn't feel like leaving after her death.
>
> Father left real-estate and financial obligations; also, liked the area for fishing and hunting.

Others emphasized being reared in rural areas.

> Reared in a rural area and want to rear my family in one.
>
> Born and reared in rural area--like general practice.

A similar theme was the liking for rural areas and people and the opposite dislike for the city with its tensions.

> Never thought of practicing in a city--fit in with country people.
>
> Dislike city tensions--like country people.
>
> Dislike noise, confusion, tension of city--knew no neighbors in the city.
>
> Like rural life--had farming interests.

Another important consideration for locating in rural areas was connected with the ease in getting started in practice and the opportunity for general practice in rural areas. More than 20 percent of the medical doctors mentioned the idea that rural practice and general practice were related. Such responses as the following illustrate this area.

> Took more money to set up in the city.
>
> More sure of income quickly in rural areas.
>
> Wanted a general practice - wanted to be own boss and it is my hometown.
>
> Liked general practice, happier with rural people, opportunities were better to get started.
>
> Always wanted to be a G.P., rural area only place for me.
>
> Not enough money for residency, not restricted in practice [in rural area] when become a G.P.

Some differences in reasons for choosing a rural area were apparent by age categories. The oldest physicians were most likely to mention home town or family ties; the youngest mentioned rural background. Physicians in the two middle age categories, spanning ages 45-65, were more likely than those in other age categories to report they started practicing in a rural area because it was easier to get started. These categories would bracket the depression years and a number mentioned this. Another difference clearly connected with age was the response that the doctor came to a rural area in order to have a general practice. This was mentioned by only one doctor 55 years of age or over but by 14 under 55 years, 8 of whom were under 45. This is consistent with changes in the medical profession. When older physicians entered the profession, general practitioners were dominant in all areas. Today there is a definite rural-urban difference in type of practice.

Osteopathic Doctors. Almost two out of three osteopathic doctors reported that they had decided to be a physician by the time they finished high school; 14 percent said they had "always" wanted to be a physician. Not many reported that their decision was made during the college years (8 percent); a like number said the decision was made during or immediately after service; and more than 10 percent made the decision after they entered the labor market. The remainder (10 percent) gave "other" answers or no answers.

When reasons for entering the profession were considered for medical doctors a number of expressions made by the doctors were listed. This was done to provide the reader with illustrations of the "kinds" of answers obtained. The "kind" of answer was not different for osteopathic doctors although the frequency in various categories was. We shall not repeat the operation of listing examples of responses by osteopathic doctors but report the frequency of responses in Table 7.3.

Personal influences were reported as dominant in career choices with the influence of non-relative physicians being especially high.

Only 60 percent of the osteopathic physicians indicated that they had decided to practice in a rural area by the time they had finished professional school--32

TABLE 7.2 - WHY DID YOU DECIDE TO PRACTICE IN A RURAL AREA?
RURAL MEDICAL DOCTORS

Reason	Number	Percent
Home Town and/or Family	14	19.7
Rural Background	10	14.1
Like Rural Areas and People	14	19.7
Dislike City (tensions and confusions)	14	19.7
Easier to Get Started	11	15.5
Wanted General Practice	15	21.1
Opening Available	2	2.8
Need for Physicians Evident	2	2.8
Influence of Another Physician	3	4.2
Other	6	8.5
No Answer	2	2.8

Some responses placed in more than one category; therefore, percentages add to more than 100.

TABLE 7.3 - WHY DID YOU DECIDE TO BE A PHYSICIAN?
OSTEOPATHIC DOCTORS

Reason	Number	Percent
Father a Physician	4	5.0
Other Relative a Physician	13	16.3
Other Physician (not related)	24	30.0
Other Person (not a physician)	8	10.0
Liked the Study of Science and Medicine	8	10.0
Service Motive	9	11.3
Financial Reasons	6	7.5
Counseling	--	--
Worked in a Pharmacy	--	--
Always Wanted to Be	8	10.0
Other	9	11.3
Don't Know	4	5.0

TABLE 7.4 - WHY DID YOU DECIDE TO PRACTICE IN A RURAL AREA?
OSTEOPATHIC DOCTORS

Reason	Number	Percent
Home Town and/or Family	10	12.5
Rural Background	6	7.5
Like Rural Areas and People	18	22.5
Dislike City (tensions and confusion)	7	8.8
Easier to Get Started	22	27.5
Wanted General Practice	8	10.0
Opening Available	5	6.2
Need for Physicians Evident	4	5.0
Influence of Another Physician	1	1.2
Other	10	12.5
No Answer	5	6.2

Some responses placed in more than one category; therefore, percentages add to more than 100.

percent said they had never considered any other place. About 1 in 5 made the decision during or immediately following internship. Decisions were made by 4 percent at the time of first practice and the same proportion decided during service. Twelve percent gave "other" answers or no answer.

Rural background, the attraction of rural people, and dislike for the city were reasons for the choice of rural areas as a place to practice. Also prominent was that it was easier to get started in a rural areas; 28 percent of the osteopathic doctors cited this reason (Table 7.4).

When reasons for practicing in a rural area were examined by age of the practitioner, it was found that the youngest doctors were most likely to indicate the attractions of rural areas and people. The reply that it was easier to get started was made most often by the two middle-age categories. Physicians in these age categories would be among those entering practice during the depression years.

Comparison of Rural Medical Doctors and Osteopahthic Doctors. The time of decision to become a physician differed enough for the two types of physicians to be significant at the 1 percent level. Osteopathic doctors were more likely than medical doctors to have decided on their profession during military service or after entering the labor market in some other job. Medical doctors were somewhat more likely to report that a choice had been made before entering high school; a larger proportion of decisions had also been made in college by medical doctors than by osteopathic doctors.

The reasons given for deciding to be a physician were not significantly different. Neither the time of decision to practice in a rural area nor the reasons given for practicing in a rural area were sufficiently different for the two types of doctors to be significant at the 5 percent level on the basis of chi square tests.

Metropolitan General Practitioners. About half of the metropolitan general practitioners reported that they had decided on a medical career by the time they had finished high school. This included 6 percent who said they had "always" wanted to be a doctor. An additional one-third had decided by the time they had finished college.

Personal influences were often cited as reasons for choosing a medical career. These and other reasons are indicated in Table 7.5.

Information parallel to that derived from asking rural doctors when and why they decided on a rural practice was not obtained for urban doctors.

TABLE 7.5 - WHY DID YOU DECIDE TO BE A PHYSICIAN? METROPOLITAN GENERAL PRACTITIONERS

Reason	Number	Percent
Father a Physician	4	8.5
Other Relative a Physician	5	10.6
Other Physician (not related)	5	10.6
Other Person not Related	2	4.3
Liked to Study Science and Medicine	7	14.9
Service Motive	8	17.0
Financial Reason	5	10.6
Always Wanted to Be	3	6.4
Other	10	21.3
Don't Know	2	4.3

Comparison of Rural Medical Doctors and Metropolitan General Practitioners. Rural physicians appeared to have made career decisions somewhat earlier than metropolitan general practitioners; the difference was significant at the 5 percent level.

The reasons given by rural medical doctors and metropolitan general practitioners followed fairly similar lines. The rural physicians tended to give personal influence reasons more often; the metropolitan doctors mentioned service motive more often. The difference in responses was not statistically significant however.

Metropolitan Specialists. Almost 20 percent of the metropolitan specialists indicated they had always wanted to be a physician. More than two-thirds said they had made a decision by the time of high school graduation.

The influence of doctors other than relatives was quite important for metropolitan specialists. In this connection a number (5) mentioned associations because of illness during youth (Table 7.6).

TABLE 7.6 - WHY DID YOU DECIDE TO BE A PHYSICIAN?
METROPOLITAN SPECIALISTS

Reason	Number	Percent
Father a Physician	7	14.9
Other Relative a Physician	6	12.8
Other Physician (not related)	13	27.7
Other Person not Related	3	6.4
Liked to Study Science and Medicine	5	10.6
Service Motive	7	14.9
Financial Reasons	2	4.3
Always Wanted to Be	1	2.1
Other	3	6.4
Don't Know	4	8.5

Comparison of Rural Medical Doctors and Metropolitan Specialists. The time at which a decision was made to become a doctor was very similar for the two residence-types of physicians.

The overall pattern of reasons for choosing a medical career was not sufficiently different to be statistically significant.

Rural Practice and Facilities

A characteristic of a professional career is that public and private lives are intermingled to such an extent that it becomes difficult to separate them. This was true among the physicians in the 20-county area. For example, it was difficult for physicians to respond to the question concerning the number of hours they worked. In a sense, they were available 24 hours a day and it was not uncommon for a doctor to say he worked all of his waking hours. The fact that few physicians retire indicates the congruence of professional and private life. Also, dissatisfactions with work and dissatisfactions with the community were not clearly differentiated.

Rural Medical Doctors. The idea that rural areas are conducive to general practice was certainly confirmed by the situation in these 20-counties. Eighty percent of the rural medical doctors were exclusively general practitioners, 14 percent were part-time specialists, and 6 percent, full-time specialists. Only 4 percent (3 doctors) were members of a specialty board. Although one-fourth of the medical doctors practicing in the area were 65 years or over, only three indicated a part-time practice. Thirteen of the 71 medical doctors were practicing in places in which there was no other medical doctor. These, of course, were in the smaller places and tended to be older doctors. The medical doctors were not without contacts with other doctors; two-thirds indicated that they had contacts with other medical doctors almost daily and only 10 percent indicated their contacts were less frequent than weekly. As a matter of fact, nearly half had formal working relations with other physicians--partnerships being the most common arrangements.

The interviewers observed that some of the clinic-type partnership arrangements in these counties were the most satisfactory to the physicians involved. Physicians in these arrangements were not so continuously under the pressure of responsibility and could take a day now and then (or regularly) for personal matters. The clinic arrangement also allowed the physicians to develop areas of interest and special competency. A number of younger physicians were connected with such groups indicating that this is a means of attracting doctors.

It is supposed by some that rural doctors are without hospital facilities. This was not the case in the 20-county area; 85 percent of the medical doctors were regular staff members of one or more hospitals, an additional 10 percent were courtesy staff members of a hospital. Of those on a hospital staff, 60 percent were within 5 miles of the hospital, but 16 percent were located more than 20 miles away.

In terms of "keeping up" in the field, a majority of the medical doctors indicated that they had attended an educational meeting at a school of medicine within the past three years. When asked where they got information about new drugs, the most frequent reply was pharmaceutical detail men (83 percent), professional literature was mentioned next (70 percent), followed by professional meetings (20 percent).

Osteopathic Doctors. The osteopathic physicians in the area were mostly general practitioners. A considerable proportion (18 percent) indicated a preference for a certain kind of practice, but these physicians too were really general practitioners. Only three reported being full-time specialists, and three indicated they were members of a specialty board (two of the three full-time specialists were members of a board). Five were in part-time practice.

Thirty-five of the 80 osteopathic physicians practiced in places in which there was no other osteopathic physician. Most of the osteopathic physicians did not have a formal working relationship with another doctor. For those who did, a salary arrangement was almost as common as a partnership. About half indicated that they had almost daily contact with other osteopathic doctors and 14 percent indicated contacts less frequent than weekly.

Most of the osteopathic physicians were on a hospital staff. In addition to the 86 percent who were regular staff members, 8 percent were courtesy staff members. Thirty-five percent were within 5 miles of a hospital where they had staff privileges; but almost as many (30 percent) were more than 20 miles from such a hospital.

A large proportion of the osteopathic physicians had attended an educational session at an osteopathic college within the past 3 years. When asked about the source of information on new drugs, the largest proportion (68 percent) indicated drug company detail men, followed by professional literature (40 percent), and drug company literature (20 percent). Eight percent mentioned professional meetings.

Comparison of Rural Medical Doctors and Osteopathic Physicians. The two groups of physicians did not differ on specialty-general practice in that both were preponderantly general practitioners. Rural medical doctors were more likely to have formal working relationships with other doctors, a difference which was significant at the 1 percent level. There was no statistical difference (and almost no percentage difference) between osteopaths and medical doctors in membership on hospital staffs, but there was a difference in the distance that the doctors were from the hospital, with osteopathic doctors being at a disadvantage ($X^2 = 9.4$, d.f. 2, significant at 1 percent level).

Metropolitan General Practioners. The metropolitan doctors, of course, were selected on the basis of being either general practitioners or specialists. By virtue of their physical setting one would expect metropolitan physicians to be less isolated both from other doctors and from facilities.

A large majority (77 percent) of the metropolitan general practitioners had "almost daily" contacts with other doctors; however, for several (13 percent) contacts were quite infrequent (several times a month or seldom). About one in three had formal working relationships with other doctors.

Hospital membership was almost universal among the metropolitan general practitioners with only four of the 47 doctors not on a hospital staff. More than three-fourths were within 5 miles of the hospital where they held a staff position.

Comparison of Rural Medical Doctors and Metropolitan General Practitioners. The supposed isolation of rural physicians was not apparent in the comparisons made here. Rural doctors were almost as likely to be on hospital staffs, have formal working relations with other medical doctors, and indeed were almost as likely to have daily contacts with other doctors as were metropolitan general practitioners. The only significant difference was in distance from the hospital, in which case rural doctors were at a disadvantage.

Metropolitan Specialists. Almost 90 percent of the specialists had "almost daily" contacts with other doctors and only 6 percent had contacts less often than once a week. More than half had formal working relationships with other doctors, most often a partnership.

With only one exception, specialists were members of a hospital staff and the offices of the great majority of them were within 5 miles of the hospital.

Comparison of Rural Medical Doctors and Metropolitan Specialists. A significantly greater proportion of the metropolitan specialists were members of hospital staffs and they were closer to the hospital where they held staff memberships. They were no more likely to have formal working relations with another physician however.

Doctor and Patient

Physicians were asked several questions about relationships with their clientele. These items were entirely "relational" in nature and did not involve medical considerations. One area explored was whether the physicians' public regarded them as a service or as a family confidant in the traditional family doctor relationship.

Rural Medical Doctor. Few rural medical doctors thought that people in their community regarded them either with suspicion or with awe. When asked to rank the following statements in answer to the question, "How do people actually regard the doctor?"

(a) they regard the doctor with awe, as a worker of miracles;
(b) they see the doctor as a service and come around only when sick;
(c) they regard the doctor with suspicion;
(d) they see the doctor as a friend and adviser in times of trouble;

the medical doctors divided about equally on giving "service" and "friend and adviser" first rank. First and second rank were confined almost entirely to these two responses. More medical doctors assigned a lower rank to "suspicion" than to "awe" (Table 7.7). One thing this reveals is that the ideas of "service" and "friend and adviser" are not mutually exclusive and that physicians saw themselves in the eyes of their patients as functioning in both ways. It also indicates that physicians do not believe that their clientele is likely to be suspicious of them or to regard them as miracle workers.

TABLE 7.7 - HOW DO PEOPLE REGARD THE PHYSICIAN?
RURAL MEDICAL DOCTOR

Rank	Awe	Service	Suspicion	Friend and Adviser*
			(Percent)	
1	--	48	--	52
2	5	48	3	44
3	61	3	33	3
4	34	1	64	--

*See discussion for actual statements.

The medical doctors were asked further whether people consulted them regularly about family matters. About half indicated they did, and half that they did not. There was little difference by age of physicians in the responses to their question.

Again, when asked if people made unreasonable demands, about half of the medical doctors answered affirmatively. There was almost no difference in response on the basis of age of the physician. The most common type of demand mentioned was an inordinate demand on the physician's time. A number indicated that people formerly made unreasonable demands but no longer do so.

Osteopathic Doctors. As with medical doctors, few osteopathic doctors in the area thought that people regarded them with either awe or suspicion. When they were asked to rank the four statements above, they divided about equally between "service" and "friend and adviser." Apparent in the pattern is the close correspondence with medical doctors (Table 7.8).

When asked if people consulted them regularly about family matters almost two-thirds indicated that they did. Age of physician made almost no difference in the reply. When asked if people made unreasonable demands, the osteopathic doctors divided equally in positive and negative responses. The youngest doctors were

TABLE 7.8 - HOW DO PEOPLE REGARD THE PHYSICIAN?
OSTEOPATHIC DOCTORS

Rank	Awe	Service	Suspicion	Friend and Adviser
			(Percent)	
1	3	44	--	54
2	3	51	3	44
3	59	5	34	2
4	35	--	63	--

somewhat more likely to indicate unreasonable demands. Inordinate demands on time was most frequently mentioned.

Comparison of Rural Medical Doctors and Osteopathic Doctors. Regarding indices of relationships between patients and physicians there was a remarkable correspondence in responses between medical doctors and osteopathic doctors. When medical doctors were compared with osteopathic doctors in this section no significant differences were found.

Metropolitan General Practitioners. The only questions in this section comparable to those asked in the rural area were whether people consulted them regularly about family matters and whether or not people made unreasonable demands. About 80 percent responded that they were consulted regularly on family matters and about one-third said that unreasonable demands were made on them.

Comparison of Rural Medical Doctors and Metropolitan General Practitioners. There was a significant difference between rural medical doctors and metropolitan general practitioners on the response to the question of whether they were consulted regularly on family matters; contrary to expectations the metropolitan doctors were more likely to answer affirmatively. There was not a significant difference between the responses of the two types of physicians on whether unreasonable demands were made on them.

Metropolitan Specialists. To the question, "Do people consult you regularly on family matters?" about 60 percent answered affirmatively; and about half said that people make unreasonable demands on their time.

Comparison of Rural Medical Doctors and Metropolitan Specialists. The differences in responses of rural medical doctors and metropolitan specialists to the questions above were not great enough to be significant at the 5 percent level.

View of Work Situation

Two questions are considered, "How do you feel about the work situation here?" and "What do you see as the main difference in practicing in a rural area and in the city?"

Rural Medical Doctors. To the question, "how do you feel about the work situation here?" respondents were asked to check a five-point scale from entirely satisfied to entirely dissatisfied. If they were not entirely satisfied, the reason for dissatisfaction was asked. The results were:

entirely satisfied	36.6 percent
generally satisfied	56.3 percent
not satisfied but not really dissatisfied	5.6 percent
generally dissatisfied	none
entirely dissatisfied	1.4 percent

The bulk of the responses were on the satisfied side. The oldest physicians reported the largest proportion being entirely satisfied (56 percent); the youngest, the smallest proportion entirely satisfied (29 percent). The reason most often given for dissatisfaction was inordinate demands on time, followed by lack of adequate facilities and consultation, and working relations with other physicians. Other reasons were scattered.

Over half of the rural medical doctors regarded the close personal contacts in rural areas as the main difference in practicing in a rural area and a city. The second most common response was better facilities in urban areas (15 percent); other reasons given were: hours more irregular in rural areas (13 percent), more consultation available in urban areas (13 percent), less restraint on practice in rural areas (8 percent). Other scattered differences were mentioned.

The responses that rural doctors have closer contacts with their patients is consistent with the primary-relations typology of rural society. Some of the responses that reflect this type of relationship follow:

> The doctor-patient relation is much closer and familiar here in rural areas.
>
> You know your patient and his family better and what will or will not help him.
>
> Two different situations, urban and rural. Rural M.D. has to live with patients, city M.D. doesn't.
>
> More of a family physician. In a rural area you know patients--people are friends first, patients second. You can treat them better.
>
> Everybody in daily relations needs to have a sense of being needed. This you get in the country. In the city anyone else could do it.
>
> Closer contact with the people. Physician gets a sense of having done something real good when he walks down the street.
>
> In the city, you practice the science--in country, you practice the art.
>
> Love the personal contact I get in a small town--like small town people--continuing care of a family.

The close personal contacts are not seen as an unmixed blessing by all. For example:

> Personal relationships of the rural area demand continual "being on the job." City doctors have time for themselves.
>
> We're subject to night calls and home calls; also Sunday and holiday visiting.

A number of physicians mentioned the lack of facilities.

> Hospital facilities and association with other physicians lacking here--no vacation.
>
> City hospitals are better and cleaner.

This is not a problem for other physicians in the area.

> No difference in facilities for practice any more--rural areas have them.
>
> Up until 3 years ago there was a lack of facilities--now we have them.

And consultation is not so readily available was mentioned by some.

> More on your own in rural areas. Referrals to specialists are made less often because of our rural isolation.

Again this is not regarded as wholly bad.

> I have seen general practitioners in the city who had nothing more to do than follow-up work after treatment by specialists.

The majority of medical doctors (59 percent) did not believe there was a serious shortage of doctors in the area where they practiced.

Osteopathic Doctors. On questioning about the work situation the following responses were recorded:

entirely satisfied	46.3 percent
generally satisfied	36.3 percent
not satisfied but not really dissatisfied	16.2 percent
generally dissatisfied	1.2 percent
entirely dissatisfied	none

Osteopathic physicians 55-64 were the most likely to be entirely satisfied (67 percent), the youngest least likely (37 percent). The most common reason given for dissatisfaction with the work situation was inordinate demands on time by people in the area; followed by lack of adequate facilities and consultation, financial reasons, and attitude of local people toward health.

The difference between practicing in a rural area and city most often cited by osteopathic physicians was the close contact with patients in a rural area--one-third mentioned this. Also mentioned with some frequency were more specialist consultation in urban areas (12 percent), less restraint on practice in rural areas (10 percent), irregular hours in rural areas (8 percent), and less pressure and tension in rural areas (8 percent).

From the viewpoint of most of the osteopathic doctors in the area (89 percent) there was not a serious shortage of doctors.

Comparison of Rural Medical Doctors and Osteopathic Doctors. The difference in satisfaction was not great enough to be significant at the 5 percent level. And although more medical doctors than osteopathic doctors mentioned "close personal contacts" as the main difference in practicing in a rural area, the difference was not statistically significant. The one difference in this series that was significant was the response to the question on whether or not there was a serious shortage of physicians in the area. An appreciably larger number of medical doctors said there was.

Metropolitan General Practitioners. Almost half of the metropolitan general practitioners were entirely satisfied with the work situation and almost as many were generally satisfied leaving only three doctors who reported they were less than "generally satisfied." The reasons given for being less than entirely satisfied were scattered. Four doctors mentioned working relations with other physicians; 3, demands on time; 2, attitudes of people toward health care.

The main difference in rural and urban practice, as viewed by metropolitan general practitioners, was a difference in facilities and consultation services--36 percent mentioned better facilities, 30 percent mentioned opportunity for consultation. Other differences mentioned in order of frequency were: fewer demands on time in the city (15 percent), more education and cultural advantages (15 percent), less personal contact in the city (9 percent), changing clientele in the city (6 percent), and no difference between rural and urban practice (4 percent).

Comparison of Rural Medical Doctor and Metropolitan General Practitioner. There was no difference in response to the question on satisfaction with the work situation. Rural and metropolitan doctors did respond differently to the question on the difference in rural and urban practice. The rural physician emphasized the close personal contacts in a rural practice while the metropolitan doctors emphasized the lack of facilities in the rural area.

Metropolitan Specialists. One-third of the specialists reported being entirely satisfied with the work situation; an additional 50 percent, reported being generally satisfied. The remaining (17 percent) were something less than generally satisfied. Reasons given by those for not being entirely satisfied with the work situation were: working relations with other doctors (11 percent), inordinate demands on time (6 percent), lack of adequate facilities (4 percent), lack of trained paramedical personnel (4 percent). There were other scattered reasons given.

When inquiry was made as to the main difference in practicing in a rural and urban area, the metropolitan specialists most often replied that there was better opportunity for specialists in an urban area (40 percent), and with the related response that there were better facilities in the urban area (30 percent). Other differences mentioned were: more educational and cultural advantages in the city (13 percent), less personal contact in urban areas (9 percent), no difference in rural and urban practice (6 percent), fewer demands on time in city (4 percent).

Comparison of Rural Medical Doctors and Metropolitan Specialists. The response to the question of satisfaction with the work situation was very similar for rural medical doctors and metropolitan specialists. The statements of differences in rural and urban practice were quite different for the two groups with the responses of metropolitan specialists being close to those given by the metropolitan general practitioners.

Professional Organizations

Membership in professional organizations is an index to commitment to the profession. For both medical and osteopathic doctors there is a complex professional organizational structure.

For both types of physicians a general professional organization exists with national,state, and local levels. In our analysis, membership at each level was counted separately. Among medical doctors, with only one exception, membership at one level was accompanied by membership at the other two. While the same pattern held for osteopathic physicians, it was not quite as pronounced. The decision to count each level of the general professional society as separate was based, in part, on the development of a participation score. Since physicians might or might not participate at each level, it was thought useful to treat them as separate memberships. Professional memberships other than those in the general associations were usually in connection with the physician's area of specialty or competence including general practice. It may be worth noting here that the osteopathic profession now lists a set of specialties that closely parallels that of the medical profession.[25]

Level of participation as well as membership was considered. To do this, a modification of the Chapin Social Participation Scale was used.[26] A physician was given 1 point each for membership, attendance during the year holding an office or committee position currently, and holding an office in previous years.

The general hypotheses is that rural physicians are not as professionally oriented as urban physicians and that medical doctors are more professionally oriented than osteopathic physicians.

It is further suggested that the most intensive orientation to a profession comes about when the physician is most completely established in his profession. In terms of age, it is hypothesized that this would be in the middle age categories where the physician is at the height of his career. The youngest physicians might not yet have time or opportunity to participate fully in organized professional activities; the oldest may disengage from such activities.

Rural Medical Doctors. No one doubts the commitment of medical doctors to their profession. The commitment was demonstrated by the high proportion of the rural medical doctors who belonged to professional organizations. Only six were not members of the general professional organization and with one exception these were elderly physicians; the exception was a "new" doctor who had not had time to become a member but fully intended to do so.

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[25] A.O.A. Directory of Osteopathic Physicians, 1962, p. 45.

[26] F. Stuart Chapin, Experimental Designs in Sociological Research, Harpers and Brothers, New York, 1947, pp. 196-197.

Appendix Table 7.1 indicates the distribution of membership. Those with four or more memberships belonged to an organization in addition to the local, state, and national levels of the general medical association. This totaled more than one-half of the physicians. The most common additional membership was in the academy of general practice, held by 20 physicians.

On the average, medical doctors were affiliated with 3.5 professional organizations. The average number of memberships by age of physician is shown in Table 7.9. There was a tendency for the middle age categories to have the highest number of memberships which supports the hypothesis that the middle years are those most active professionally.

TABLE 7.9 - AVERAGE MEMBERSHIP AND AVERAGE PARTICIPATION IN PROFESSIONAL ORGANIZATIONS BY AGE FOR RURAL MEDICAL DOCTORS

Age	Average Number of Memberships	Average Participation Scores	Average Participation Score per Membership
-45 Years	3.3	6.8	2.1
45 - 54 Years	3.9	7.8	2.0
55 - 64 Years	4.1	8.5	2.1
65 Years and Over	2.7	4.5	1.7

The participation scores ranged from 0 to 17 with most of the cases falling in the range from 4 through 9; the average was 6.7 (Appendix Table 7.2). Thus, medical doctors had an average participation score of 1.9 for each professional membership. As might be expected they were most active at the local level of the general medical association.

There was some difference by age in the average participation scores. The participation scores closely reflect the difference in number of memberships for the first three age categories. Among the oldest group the average participation score per membership is lower than the others which indicates that the oldest doctor not only belonged to fewer professional organizations but participated less in those to which they belonged.

Osteopathic Doctors. Only 7 of the 80 osteopathic doctors were not members of a professional organization. However, most of them were not members of more than three (Appendix Table 7.3). This indicates that relatively few are members of professional organizations other than the general professional association.

Osteopathic doctors had an average of 3.0 memberships in professional organizations. As Table 7.10 indicates, the oldest osteopathic doctors were, on the average, members of considerably fewer professional organizations than were those in other age categories. The full-range of specialty organizations is recent in osteopathy and the younger physicians may have had greater opportunity to be members of them.

The participation scores ranged from 0 to 20 and averaged 5.7. Since osteopathic doctors belonged to 3.0 organizations, they had an average participation score of 1.9 for each membership. There was greater participation at the local level than at state or national levels.

Participation scores of the oldest physicians averaged considerably lower than those of other age categories (Table 7.10). At all ages the participation scores closely reflect the numbers of membership, in that, for each age category the osteopathic physicians had about equal participation scores per membership.

TABLE 7.10 - AVERAGE MEMBERSHIP AND AVERAGE PARTICIPATION IN PROFESSIONAL ORGANIZATIONS BY AGE FOR OSTEOPATHIC DOCTORS

Age	Average Number of Memberships	Average Participation Scores	Average Participation Score per Membership
-45 Years	3.0	5.7	1.9
45 - 54 Years	3.4	6.5	1.9
55 - 64 Years	3.2	6.2	1.8
65 and Over	1.6	3.2	2.0

Comparison of Rural Medical Doctors and Osteopathic Doctors. In the 20-county area, medical doctors were members of more professional organizations than osteopathic doctors, a difference which was significant at the 5 percent level. When the physicians were divided into "older" and "younger" categories at age 55, it was found that the difference in professional membership held for the younger category but not for the older. When professional membership was compared by size of place, the difference between medical doctors and osteopathic doctors was not large enough to be significant in places either under 2,500 or those 2,500 and over.

The participation scores in professional organizations did not follow the memberships exactly, so that the difference in participation scores was not significantly different for medical doctors and osteopaths. Nor were there significant differences when age and size of place were controlled.

Metropolitan General Practitioners. Over two-thirds of the metropolitan general practitioners were members of 4 or more professional organizations. This means that they belonged to at least one professional organization in addition to the local, state, and national levels of the general professional organization. The average number of memberships was 4.2 (Appendix Table 7.5).

An attempt was made to assess the extent of participation by considering not only membership but attendance of meeting and office holding. A wide range of scores was indicated with an average score of 7.5 (Table 7.11). The average participation score per membership was 1.8, which indicates that for many, membership was the extent of the participation.

Table 7.11 also indicates the average membership and participation in professional organizations by age of the physician. The middle age groups had more memberships on the average but participation per membership was not greater for these age categories.

TABLE 7.11 - AVERAGE MEMBERSHIP AND AVERAGE PARTICIPATION IN PROFESSIONAL ORGANIZATIONS BY AGE, METROPOLITAN GENERAL PRACTITIONERS

Age	Average Number of Memberships	Average Participation Scores	Average Participation Score per Membership
-45 Years	3.9	7.3	1.9
45 - 54 Years	4.5	7.2	1.6
55 - 64 Years	5.1	8.9	1.7
65 Years and Over	3.7	6.8	1.8
Total	4.2	7.5	1.8

Comparison of Rural Medical Doctors and Metropolitan General Practitioners. The difference in number of memberships in professional organizations for rural medical doctors and metropolitan general practitioners was not large enough to be statistically significant. This was not changed when age of physician was controlled. Nor were there significant differences when participation scores were considered.

Metropolitan Specialists. On the average, metropolitan specialists belong to more professional organizations than any other category of physicians considered. None were without professional memberships and over 90 percent had 4 or more; the average was 6.3 (Appendix Table 7.7).

The professional participation scores of metropolitan specialists were also high, if for no other reason than the fact of their high membership. One-third had scores of 13 or over and the average was 11.3 (Appendix Table 7.8).

Examination of average membership and average participation by age indicates that physicians in middle age categories were highest in both cases. The data in the last column of Table 7.12 indicates that the average level of participation in the organizations to which physicians belonged increased as age increased. It should again be pointed out that the number of cases is small and when age is controlled, for specialists, the number 65 and over is only five physicians.

TABLE 7.12 - AVERAGE MEMBERSHIP AND AVERAGE PARTICIPATION IN PROFESSIONAL ORGANIZATIONS BY AGE, METROPOLITAN SPECIALISTS

Age	Average Number of Memberships	Average Participation Scores	Average Participation Score per Membership
-45 Years	5.9	8.9	1.5
45 - 54 Years	6.9	12.4	1.8
55 - 64 Years	6.4	12.2	1.9
65 Years and Over	5.6	11.1	2.0
Total	6.3	11.3	1.8

Comparison of Rural Medical Doctors and Metropolitan Specialists. There was a difference significant at the 1 percent level in number of professional memberships for rural medical doctors and metropolitan specialists. The difference was large enough when age was controlled to remain significant at the 1 percent level for each age category.

Participation scores also showed a difference significant at the 1 percent level by chi-square test. The difference for those under 55 years of age was almost but not quite large enough to be significant at the 5 percent level; for those 55 or over there was a difference significant at the 5 percent level.

Over-all it can be said that a difference in membership and participation was found between rural medical doctors and metropolitan specialists which always favored the metropolitan doctors.

SUMMARY OF X^2 COMPARISONS OF THE PRACTICE IN A RURAL AREA (continued)

Rural Medical Doctors and Rural Osteopathic Doctors	X^2	d.f.	signif.[1]
Time of Decision to be a Physician	16.2	4	**
Reasons for Deciding to be a Physician	4.7	8	-
Time of Decision for Practicing in a Rural Area	5.1	3	-
Reasons for Practicing in a Rural Area	7.6	6	-
Rural Medical Doctors and Metropolitan General Practitioners			
Time of Decision to be a Physician	12.2	4	*
Reasons for Deciding to be a Physician	6.1	6	-
Rural Medical Doctors and Metropolitan Specialists			
Time of Decision to be a Physician	2.8	4	-
Reasons for Deciding to be a Physician	5.3	5	-
Rural Medical Doctors and Rural Osteopathic Doctors			
Formal Working Relations with Other Doctors	7.6	1	**
Membership on Hospital Staff	0.3	1	-
Distance to Hospital	9.4	2	**
Rural Medical Doctors and Metropolitan General Practitioners			
Formal Working Relations with Other Doctors	0.3	1	-
Membership on Hospital Staff	1.8	1	-
Distance to Hospital	8.7	2	*
Rural Medical Doctors and Metropolitan Specialists			
Formal Working Relations with Other Doctors	1.0	1	-
Membership on Hospital Staff	4.9	1	*
Distance to Hospital	7.4	2	*
Rural Medical Doctors and Rural Osteopathic Doctors			
Ranked First: People See the Doctor as a Service and Come Around Only When Sick	0.2	1	-

SUMMARY OF X^2 COMPARISONS OF THE PRACTICE IN A RURAL AREA (continued)

	X^2	d.f.	signif.[1]
Ranked First: People Regard the Doctor as a Friend and Adviser in Times of Trouble	0.0	1	-
Indicated that People Consulted them Regularly about Family Matters	1.8	1	-
Indicated that People make Unreasonable Demands on Them	0.1	1	-
Rural Medical Doctors and Metropolitan General Practitioners			
Indicated that People Consulted them Regularly about Family Matters	9.6	1	**
Indicated that People make Unreasonable Demands on Them	1.8	1	-
Rural Medical Doctors and Metropolitan Specialists			
Indicated that People Consulted them Regularly about Family Matters	.2	1	-
Indicated that People make Unreasonable Demands on Them	0	1	-
Rural Medical Doctors and Rural Osteopathic Doctors			
Entirely Satisfied with Work Situation	1.4	1	-
Main Difference in Practicing in a Rural Area and an Urban Area	7.8	4	-
Is there a Serious Shortage of Physicians in the Area?	16.7	1	**
Rural Medical Doctors and Metropolitan General Practitioners			
Entirely Satisfied with Work Situation	2.0	1	-
Main Difference in Practicing in a Rural Area and an Urban Area	24.6	4	**
Rural Medical Doctors and Metropolitan Specialists			
Entirely Satisfied with Work Situation	0	1	-
Main Difference in Practicing in a Rural Area and an Urban Area	33.5	4	**

Around Only When Sick

SUMMARY OF X^2 COMPARISONS OF THE PRACTICE IN A RURAL AREA (continued)

	X^2	d.f.	signif.[1]
Rural Medical Doctors and Osteopathic Doctors			
Number of Profession Memberships	9.2	3	*
Under 55 Years	6.0	1	*
55 Years and Over	1.9	1	-
Under 2500 Population	3.1	1	-
2500 Population or Over	3.4	1	-
Participation Scores in Professional Organizations	5.4	4	-
Under 55 Years	2.9	2	-
55 Years and Over	3.9	2	-
Under 2500 Population	1.5	2	-
2500 Population or Over	4.0	2	-
Rural Medical Doctors and Metropolitan General Practitioners			
Number of Professional Memberships	3.7	2	-
Under 55 Years	2.9	1	-
55 Years and Over	1.5	1	-
Participation Scores in Professional Organizations	0.3	3	-
Under 55 Years	0.0	1	-
55 Years and Over	0.1	1	-
Rural Medical Doctors and Metropolitan Specialists			
Number of Professional Membership	42.1	2	**
Under 55 Years	11.0	1	**
55 Years and Over	13.5	1	**
Participation Scores in Professional Organizations	25.0	3	**
Under 55 Years	3.7	1	-
55 Years and Over	9.5	1	**

[1] (-) = Not significant at the 5 percent level.
* = Significant at the 5 percent level.
** = Significant at the 1 percent level.

Summary and Conclusions. A question was raised earlier as to why some doctors would choose rural practice if the stereotype of the isolated physician working out of a "little black bag" prevailed in a medical world of advanced technology. The answer, in part, is that practice in the rural area is not so different, in terms of technology available, from practice in the city. Hospital staff membership was the rule for all types of physicians considered, although distances from the hospital remains a factor in rural areas. In the case of distance, osteopathic physicians are the most isolated from hospital facilities.

Perhaps somewhat surprisingly, frequent contact with other physicians was not clearly less common among rural medical doctors than among their counterpart in the metropolitan area nor were they less likely to have formal working relations with other physicians.

All four types of physicians indicated their satisfaction with their working conditions. This question, to be sure, was not a very penetrating probe of the area of satisfaction, but satisfaction is corroborated by the low mobility among physicians with the exception of the osteopathic doctors.

Nor were membership and participation in professional organizations greatly different for rural medical doctors and metropolitan general practitioners. In this case, both osteopathic physicians and specialists showed a different pattern from rural medical doctors with osteopathic doctors showing somewhat lower professional membership and specialists being clearly higher.

Rural physicians, at least, seem to think that the difference in rural and urban practice lies in the relationship with the patients and community. They further believe that for the general practitioner the rural area is not a second choice. In many of the statements of choice the rural background of the doctor is evident.

In the next chapter consideration will be given to how physicians in rural and metropolitan settings participate in their communities.

CHAPTER VIII

Orientation to the Community

The physicians in the area, especially the medical doctors, were very stable in terms of residence in the community where they were practicing. A majority of them had spent their entire careers in the same location and, indeed, a substantial proportion had spent their youth where they were practicing. In this chapter, we shall examine the manner in which physicians relate to their communities.

Several indices of community orientation were used, including membership in formal and informal non-health organizations, friendship patterns, participation in local government, and questions concerned with feeling about living in the community.

Membership and Participation in Non-health Formal Organizations

A characteristic of American society is the proliferation of voluntary associations. Few writers go far into the matter without citing deTocqueville on the subject. The observations made by this visitor from France in 1831 sound very modern.

> "Americans of all ages, all conditions and all dispositions, constantly form associations. They have not only commercial and manufacturing companies, in which all take part, but associations of a thousand other kinds,--religious, moral, serious, futile, general or restricted, enormous or diminutive. Americans make associations to give entertainments, to found seminaries, to build inns, to construct churches, to diffuse books, to send missionaries to antipodes; they found in this manner hospitals, prisons, and schools."[27]

But not all persons belong to many or any associations. And the light of research has found that such things as age and condition do make a difference in participation in voluntary organizations. The indication is that probably not more than half the adult population in the U.S. belongs to a single voluntary association and that membership rises markedly as income and education increase.[28] Of further interest to the present study is that the rate of membership is lowest in the largest metropolitan areas and highest in small cities ranging from 2,500 to 50,000 in population.[29]

In this section, we shall examine the membership of physicians in non-health formal organizations. Professional organizations were regarded as part of the physician's professional commitment; membership in non-health organizations is an index of community commitment. The question, here, is whether physicians are more concerned with community affairs or professional activities in organizational participation.

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[27] Alexis deTocqueville, Democracy in America (Edited and abridged by Richard D. Heffner) Mentor Books, New American Library, 1956, New York, p. 198.

[28] Murray Hausknecht, The Joiners, Bedminister Press, New York, 1962, p. 17.

[29] Ibid. p. 18, p. 26.

In explaining use of the concept, non-health formal organizations, it might be pointed out that a higher rate of membership was recorded in the present research than elsewhere in the literature. Several factors may contribute to this. Perhaps most important, all empirical research indicates that social status is positively related to membership in voluntary organizations; physicians on this basis would be expected to have high membership.[30] A study by Bushee in Boulder, Colo., reported an average membership for physicians of 3.8, approaching the non-health organization membership for medical doctors in this study (4.3).

Secondly, organizations may have been included in this study that are not included in others. There is no agreement in the literature as to which groups are to be counted as voluntary organizations. In various studies, professional groups, unions, and church groups may or may not be included. More serious, in a number of studies it is impossible to determine which groups were and which were not used. Therefore, in arriving at membership figures it is explicitly stated that professional and voluntary health organizations and non-formal organizations, such as bridge clubs and bowling groups, were excluded. Church membership and membership in church related organizations such as men's club were counted separately. It was thought that church membership was an appropriate consideration because in rural areas much social activity centers in this association. Membership in the various lodges within the Masonic order were also counted separately; the justification being that each offered an arena for participation and we were concerned with participation as well as membership.

A third reason for the high membership recorded may have been the techniques of interviewing. Hausknecht's comparison of membership in voluntary organizations in two national samples shows the very large difference that can result from asking for the same information in different ways. He points out that it is axiomatic that the more detailed the questioning the larger the number of events that will be discovered. In the present study, a detailed list of organizations under several general headings was prepared, and the physician was asked to respond to each of these organizations. He was also asked to add any organizations not listed.

In addition to the ranking by number of memberships, an index of participation, developed from a modification of the Chapin Social Participation Scale, was computed.[31] One point each was given for membership, attending a meeting during the year and holding office during the year.

Rural Medical Doctors. Few rural medical doctors were without affiliation in non-health formal organizations and half of them were members of from four to six organizations (Appendix Table 8.1). The modal participation score category was 7 to 9 with other scores distributed in a symmetrical pattern around it. (Appendix Table 8.2).

The average number of memberships was 4.3. This varied somewhat by age with younger physicians recording fewer memberships. The highest average membership was in the 55-64 years age category. While rural medical doctors in the older age categories maintained a relatively high number of memberships, their average participation per organization was lower than that of doctors in the younger brackets. For many physicians, membership was the extent of participation (Table 8.1).

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[30] Fredrick Bushee, "Social Organizations in a Small City," American Journal of Sociology, November 1945, p. 224.

[31] F. Stuart Chapin, Experimental Design in Sociological Research, Harper: New York, 1954, pp. 195-197.

TABLE 8.1 - AVERAGE MEMBERSHIP AND AVERAGE PARTICIPATION IN NON-HEALTH FORMAL ORGANIZATIONS BY AGE FOR RURAL MEDICAL DOCTORS

Age	Average Number of Memberships	Average Participation Score	Average Participation Score per Membership
-45 Years	4.0	7.5	1.9
45 - 54 Years	4.0	8.2	2.1
55 - 64 Years	5.0	8.6	1.7
65 Years and Over	4.5	7.7	1.7
Total	4.3	8.0	1.9

Osteopathic Doctors. Only three of the 80 osteopathic doctors reported that they were not members of a non-health organization. Thirty-five percent were members of from one to three organizations and the same number were members of from four to six organizations. (Appendix Table 8.3). The participation scores formed a bimodal distribution with modes at four to six and 16 and over.

Older physicians had, on the average, more memberships than younger physicians, increasing from 4.4 for those under 45 years of age to 5.4 for those 65 and over. Average participation did not decrease with age in either total score or participation per membership (Table 8.2).

TABLE 8.2 - AVERAGE MEMBERSHIP AND AVERAGE PARTICIPATION IN NON-HEALTH FORMAL ORGANIZATIONS BY AGE FOR OSTEOPATHIC DOCTORS

Age	Average Number of Memberships	Average Participation Scores	Average Participation Score per Membership
-45 Years	4.4	8.4	1.9
45 - 54 Years	4.8	10.4	2.2
55 - 64 Years	5.2	11.3	2.2
65 Years and Over	5.4	11.4	2.1
Total	4.8	10.0	2.1

Comparison of Rural Medical Doctors and Osteopathic Doctors. When medical doctors and osteopathic doctors in the 20-county area were compared on membership in formal non-health groups, it was found that differences in membership were not great enough to be significant at the 5 percent level by X^2 test. This was also true when physicians under 55 and 55 and over, and those in places of less than 2,500 and 2,500 or more population were considered separately. Differences in the participation scores, however, were statistically significant with osteopathic physicians having a higher mean participation score than medical doctors. Also, the shapes of the distributions of participation scores were different for the two groups of doctors. Medical doctors had a rather symmetrical distribution around a single modal category; while the osteopathic physicians had a bimodal distribution with the first mode being reached at a lower score than the modal score of medical doctors; the second mode of the osteopathic physicians was in the category of the highest score. Differences in participation scores in non-health formal organizations for medical doctors and osteopathic doctors remained large enough to be significant when age of physicians and size of place were controlled using the above breaking points.

Metropolitan General Practitioners. Metropolitan general practitioners on the average belonged to 2.8 non-health organizations; over two-thirds belonged to no more than three organizations (Appendix Table 8.5). Participation scores ranged from 0 to 19 with an average score of 6.0 (Appendix Table 8.6).

Average membership did not vary greatly by age. The highest average membership occurred among the youngest and oldest physicians. The highest average participation score was found among physicians 45 to 54 who at the same time had the lowest average number of memberships (Table 8.3).

TABLE 8.3 - AVERAGE MEMBERSHIP AND AVERAGE PARTICIPATION BY AGE FOR METROPOLITAN GENERAL PRACTITIONERS

Age	Average Number of Memberships	Average Participation Score	Average Participation Score per Membership
-45 Years	2.8	6.4	2.3
45 - 54 Years	2.2	8.0	3.6
55 - 64 Years	2.6	5.0	1.9
65 Years and Over	3.2	7.6	2.4
Total	2.8	6.0	2.1

Comparison of Rural Medical Doctors and Metropolitan General Practitioners. Rural medical doctors had more memberships in non-health formal organizations than was true for metropolitan general practitioners. The difference was significant at the 1 percent level and was more pronounced for physicians under 55 years than for those 55 or over.

A statistically significant difference was found for the participation scores of rural medical doctors and metropolitan general practitioners. This difference reflecting that of membership was significant for physicians under 55 years of age, but not for those 55 or older.

Metropolitan Specialists. The average membership in non-health formal organizations for metropolitan specialists was 2.7 with 70 percent of them having three or fewer memberships. The modal category of participation scores was four to six with a fairly symmetrical distribution around it.

Average membership was similar for all age categories with the younger ones somewhat higher. Average participation by age followed closely the number of memberships so that the average participation per membership was very close to two in each age category (Table 8.4).

TABLE 8.4 - AVERAGE MEMBERSHIP AND AVERAGE PARTICIPATION BY AGE FOR METROPOLITAN SPECIALISTS

Age	Average Number of Memberships	Average Participation Score	Average Participation Score per Membership
-45 Years	2.7	5.2	1.9
45 - 54 Years	3.0	6.0	2.0
55 - 64 Years	2.5	5.4	2.2
65 Years and Over	2.2	4.4	2.0
Total	2.7	5.4	2.0

Comparison of Rural Medical Doctors and Metropolitan Specialists. Rural doctors belonged to a significantly larger number of non-health organizations than did metropolitan specialists. This difference remained significant at the 1 percent level when age categories were considered separately. There was also significant differences in participation score for the total group and for each age category.

Informal Groups

Another type of participation is through informally organized groups. These have the quality of relatively regular activity but no formal organization. They include such activities as bridge clubs, bowling groups, and discussion groups.

Rural Medical Doctors. Rural medical doctors reported that they belonged to an average of 1.2 informal groups. Over one-third belonged to no such group. On the whole, younger physicians participated in these activities to a greater extent than older physicians--the average number of informal groups for physicians under 55 years of age was 1.6; for those 55 and over it was 0.7. Also, those in larger places averaged more informal groups--under 2500 population, 0.9 informal groups; 2500 and over, 1.4 informal groups.

Osteopathic Doctors. Osteopathic doctors in the 20 counties belong to an average of 1.7 informal groups. More than one-fourth of them belonged to no informal group. Younger doctors belonged to a somewhat larger number of informal groups -- under 55 years an average of 1.9 informal groups; 55 years and over an average of 1.2 groups. There was little difference in the average number of informal groups by size of place. The difference that did exist favored the smaller places.

Comparison of Rural Medical Doctors and Osteopathic Doctors. The number of memberships in informal groups was not statistically different for medical and osteopathic doctors. This was not changed when age was controlled at under and over 55 years or when size of place was controlled at under and over 2,500 population.

Metropolitan General Practitioners. Metropolitan general practitioners reported belonging to an average of less than 1 informal group (0.7) -- more than half belonged to none. The average numbers of groups for physicians under and over 55 years of age were very close--0.6 and 0.9, respectively.

Comparison of Rural Medical Doctors and Metropolitan General Practitioners. No statistical differences occurred in number of informal groups either for the two types of physicians considered together or when they were divided into age categories.

Metropolitan Specialists. Specialists belonged to an average of 1.0 informal group; 45 percent claimed no informal group activity. The average number of informal groups was virtually the same for those over and under 55 years of age.

Comparison of Rural Medical Doctors and Metropolitan Specialists. For the categories of physicians considered as a whole, the difference in number of informal groups belonged to by rural medical doctors and metropolitan specialists was not large enough to be statistically significant. For those under 55 years, the difference was large enough to be significant at the 1 percent level; there was no difference in the older category.

Participation in Local Government

Participation in local government offers an uniquely valuable index of integration into community affairs. In rural areas, election to office is most often on the basis of personal considerations rather than issues. In this section we shall consider election to the mayor's office, the village or city council, and the school board. Aside from being city health officers (12 reported holding this position), there were only 2 city offices other than mayor or council member that had been held at any time by the 151 physicians in the 20-counties. It seems immediately apparent that physicians in the area participated only in elected civic positions of high prestige.

Rural Medical Doctors. Ten of the 71 rural medical doctors (14 percent) had been mayors and/or councilmen. A number had served in these positions for many years. Physicians 55 years or older were more likely to have been mayor or a council member. Those in smaller places were slightly more likely to have served in one of these positions (Table 8.5).

TABLE 8.5 - LOCAL OFFICES HELD BY RURAL MEDICAL DOCTORS BY AGE OF DOCTOR AND SIZE OF LOCATION*

	Age				Size of Place			
	Under 55		55 and Over		Under 2,500		2,500 and Over	
Office	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Mayor and/or Council	4	10.0	6	19.4	5	16.7	5	12.2
School Board	9	22.5	11	35.5	11	36.7	9	22.0

*Includes those currently holding office as well as those who held offices in the past.

School board membership seems to be an especially prestigeful local office. The school represents the largest expenditure made by most small communities and local attention is centered on it. School board membership was the type of office most frequently held by medical doctors. Twenty of them (28 percent) had been on school boards. As with being mayor or councilmen, older doctors and those in smaller places were more likely to have been school board members at some time. This is explained in both instances by the greater opportunity. Of those presently in these offices, younger physicians were more numerous. This was especially true of school board members.

Osteopathic Doctors. More than one-fourth of the osteopathic doctors practicing in the area had at one time or another been a mayor and/or council member. Older physicians were only slightly more likely to have held these offices than younger physicians, but those in smaller places were much more likely to have been a mayor or council member (Table 8.6).

TABLE 8.6 - LOCAL OFFICES HELD BY OSTEOPATHIC DOCTORS BY AGE OF DOCTOR AND SIZE OF LOCATION*

	Age				Size of Place			
	Under 55		55 and Over		Under 2,500		2,500 and Over	
Office	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Mayor and/or Council	13	24.5	8	29.6	17	35.4	4	12.5
School Board	15	28.3	7	25.9	15	31.9	7	21.9

*Includes those currently holding office as well as those who held offices in the past.

Twenty-two of the 80 osteopathic physicians (28 percent) had been school board members. Those under 55 were somewhat more likely to have served on the school board. In view of the fact that timewise they had less opportunity to be members, this indicates younger osteopathic physicians may have had more ready acceptance in the community than older osteopaths.

Comparison of Rural Medical Doctors and Osteopathic Doctors. Differences in election to the offices of mayor and council seemed to favor osteopathic doctors to some extent. In several cases, these differences approached, but did not reach, the 5 percent level of significance when the physicians were compared as a whole and when they were divided on the basis of age and size of place.

The proportions of medical and osteopathic doctors who had served or were presently serving on school boards were very close. No significant differences were found when comparisons were made by age and size of place.

Metropolitan Doctors (general practitioners and specialists). There was virtually no participation of this kind among the metropolitan physicians. One physician had been a council member, but this was in a smaller place before he had come to Kansas City. None had served on school boards. In this sense an extreme difference exists between rural and metropolitan doctors which seems to be entirely dependent upon location rather than type of physician.

Friendship Patterns

Friendship patterns of physicians in the 20 counties were used as indices of community orientation. Two factors were examined: (1) Were friends residents of the community? (2) What was the occupation of friends? The relevance of the first item for community orientation of physicians is self-evident. The reasoning behind the second was that physicians are sometimes regarded as primarily orientated to the others in the profession. In such a case, the significant association is the professional community rather than the residential community. Confinement of friendship to other physicians, even if they were in the same residential community, would be evidence of professional orientation; a more heterogeneous occupational pattern of friends would be evidence of orientation to the residential community.

Data relating to these considerations were obtained from an interview item that asked a physician to think of his best friend (but not to name him or her). With the best friend in mind, the following questions were asked:

1. Does he/she live in the community?
2. Approximate distance the person lives from you?
3. Occupation?
4. Approximate age?
5. How often do you get together?
6. How long have you known each other?

The respondent was then asked to follow the same procedure for his second and third best friend. A number of physicians were unable or unwilling to follow these instructions, and it was a difficult item to make sensible to some of them. What it yields is a locational, occupational friendship pattern.

Rural Medical Doctors. The friends indicated by rural medical doctors were largely residents of the same community. Of the 67 medical doctors who answered the question, 72 percent indicated their best friend resided in the community. The proportions were of the same order for second and third best friends (64 percent and 66 percent, respectively). Thus, in an absolute sense, friendships were local.

Table 8.7 indicates the occupations of persons chosen as friends. Occupations of first, second, and third choices were quite similar. The most common categories were *professionals* and *proprietors, managers, and officials*--accounting for almost two-thirds of the choices. The "proprietor" category contains the businessmen which are characteristically the power holders in towns and small cities. Among the pro-

TABLE 8.7 - PERCENTAGE DISTRIBUTIONS OF OCCUPATIONS OF FRIENDS OF RURAL MEDICAL DOCTORS

	First Best Friend (N=66)	Second Best Friend (N=63)	Third Best Friend (N=61)
Professional & Semi-Professional	36.4	42.8	49.1
Farmers and Farm Managers	9.1	6.3	6.6
Proprietors, Managers and Officials	37.9	39.7	32.8
Clerical, Sales	12.1	7.9	4.9
Craftsmen, Foremen	---	3.2	1.6
Operatives	1.5	---	4.9
Service Workers	1.5	---	---
Laborers	---	---	---

fessionals are other physicians; therefore, we shall examine this category more closely to determine the extent to which doctors designated other doctors as best friends.

Appendix Table 8.9 shows that about 17 percent of the best friends were medical doctors; this increased somewhat for second and third choices (21 percent and 25 percent, respectively). In addition, certain other medically-connected professions were the occupations of the friends of some medical doctors--dentists were most commonly mentioned. Friendship choices, then, were not made predominately among doctors and others in the medically connected professions. The choices appeared to come largely from the higher status occupations in the community. On both counts, location and occupation, the medical doctors seemed to be oriented to the community of residence.

Osteopathic Doctors. Friendship choices were concentrated in the communities where the osteopathic physicians practiced. Of the 75 osteopathic physicians who responded to the question, two-thirds said that their best friend lived in the community. Somewhat fewer of the second and third friendship choices were community residents (64 percent and 56 percent, respectively).

The occupations of those designated as friends are shown in Table 8.8. Concentration is in the professional, semi-professional category, accounting for more than half of the occupations of second best friends. The second largest category was proprietors, managers and officials. About one-fourth of the friendship choices were in categories other than these two highest status occupational categories.

When friendship choices were classified according to those who chose other physicians (Appendix Table 8.10), about 30 percent of the first and second choices were physicians and about one-quarter of the third choice friends were physicians. Few in other medically connected occupations were reported as best friends; of them, pharmacists were mentioned most often.

TABLE 8.8 - PERCENTAGE DISTRIBUTIONS OF OCCUPATIONS OF FRIENDS OF OSTEOPATHIC DOCTORS

	First Best Friend (N=69)	Second Best Friend (N=68)	Third Best Friend (N=67)
Professional and Semi-Professional	42.0	51.5	43.2
Farmers and Farm Managers	2.9	2.9	1.5
Proprietors, Managers and Officials	36.2	23.5	29.8
Clerical, Sales	10.1	11.8	10.4
Craftsmen, Foremen	1.4	1.5	9.0
Operatives	2.9	2.9	3.0
Service Workers	2.9	4.4	3.0
Laborers	1.4	1.5	---

Rural medical doctors 55 years old or older were more likely to make their friendship choices within the boundaries of the community. Physicians in places of 2,500 population or more were also more likely to choose friends located in the community. This was a consistent pattern for first, second, and third friendship choices.

Older osteopathic physicians (55 or older) and those located in larger places (2,500 population or more) were more likely to make their friendship choices within the community than were those who were younger and located in smaller places.

Comparison of Rural Medical Doctors and Osteopathic Doctors. Both medical doctors and osteopathic doctors had a high concentration of friendship choices within their communities; furthermore, the occupations of those chosen as friends were very similar. This held true for first, second, and third friendship choices, and also when age and size of place were controlled. In most cases there was a remarkable correspondence between the pattern of choices.

Metropolitan General Practitioners. Very high proportions of those named as best friends lived in Kansas City or its immediate environs (over 90 percent of first, second, and third choices).

Almost four-fifths of the first choices were among those engaged in the professions. This proportion declined substantially for the second and third choices as indicated in Table 8.9. Other white collar occupations were heavily represented among the remainder in all three choices.

Other medical doctors made up 46 percent of the first friendship choices of metropolitan general practitioners and 30 percent and 33 percent, respectively, of the second and third choices. Among those chosen in other medically connected occupations were dentists and pharmacists.

TABLE 8.9 - PERCENTAGE DISTRIBUTIONS OF OCCUPATIONS OF FRIENDS OF METROPOLITAN GENERAL PRACTITIONERS

	First Best Friend (N=43)	Second Best Friend (N=41)	Third Best Friend (N=39)
Professional and Semi-Professional	79.1	53.7	59.0
Farmers and Farm Managers	---	---	---
Proprietors, Managers and Officials	11.6	17.1	10.3
Clerical, Sales	4.7	12.2	17.9
Craftsmen, Foremen	2.3	4.9	5.1
Operatives	---	2.4	---
Service Workers	2.3	---	---
Laborers	---	---	2.6
Housewife	---	9.8	5.1

Comparison of Rural Medical Doctors and Metropolitan General Practitioners. Although friendship choices were largely within the community for both rural medical doctors and metropolitan general practitioners, the latter had enough more choices within the community to be significant for first, second, and third choices when considered as a whole and when age categories were considered separately. The gross difference in size of places is involved here. It seems remarkable that places no larger than 10,000 in population come as close as they do to a metropolitan area with a population of over a million in containing all the friendship choices of physicians.

The occupational patterns of first, second, and third best friends were different for rural medical doctors and metropolitan general practitioners at the 1 percent level in each case. The difference in pattern was that rural doctors had fewer choices among professional people and more among proprietors and managers.

Metropolitan general practitioners were more likely than rural medical doctors to make first choices from those in medically connected occupations (principally other medical doctors), but the difference was not great enough for second and third choices to be statistically significant.

Metropolitan Specialists. As with the other categories of physicians, friendship choices of metropolitan specialists were made largely within the community. The proportions within the community of first, second, and third choices were: 77 percent, 82 percent, and 86 percent, respectively.

Occupations of the first choice were concentrated heavily in the professions, and the only other occupational category represented among first choices was "proprietors and managers." Second and third choices included fewer in the profession, but were confined almost entirely to white collar occupations.

A salient point is that 80 percent of the first friendship choices were made among other physicians. Smaller proportions of physicians were recorded among second and third choices, but here physicians represented the bulk of the professional choices.

TABLE 8.10 - PERCENTAGE DISTRIBUTIONS OF OCCUPATIONS OF FRIENDS OF METROPOLITAN SPECIALISTS

	First Best Friend (N=45)	Second Best Friend (N=44)	Third Best Friend (N=44)
Professional and Semi-Professional	84.4	59.1	54.5
Farmers and Farm Managers	---	---	---
Proprietors, Managers and Officials	15.6	27.3	29.5
Clerical, Sales	---	11.4	11.4
Craftsmen, Foremen	---	2.3	---
Operatives	---	---	---
Service Workers	---	---	2.3
Laborers	---	---	---
Housewife	---	---	2.3

Comparison of Rural Medical Doctors and Metropolitan Specialists. The difference in residence of first friendship choices of rural medical doctors and metropolitan specialists was not significant at the 5 percent level in spite of the fact that those in the metropolitan area had much greater opportunity on the basis of population to confine their choices to the community. Also, it is interesting to notice that for rural medical doctors the first choice was more likely than the second or third choice to be in the community; the reverse was true for metropolitan specialists.

Differences in residence for second and third choices were found when all physicians were considered together; with one exception, they were not significant when age was controlled.

Occupational patterns of first friendship choices were different for the two categories of physicians at the 1 percent level. The difference came from the larger proportion of choices by rural physicians from among "proprietors and managers" and by metropolitan specialists from among professionals. Occupations of second and third friendship choices by rural medical doctors and metropolitan specialists were not significantly different by chi square test.

The friendship choices of metropolitan specialists were more likely to be from among those in medically connected occupations than were those of rural medical doctors. The difference was significant for all three choices.

Living in a Small Town

Physicians were asked to express their feelings about living in their present location by checking a 5-point scale ranging from entirely satisfied to entirely dissatisfied. Those who indicated something other than entire satisfaction were asked to give reasons for dissatisfaction. Following this they were asked to indicate both disadvantages and advantages of living in a small town.

Rural Medical Doctors. Forty-five percent of the rural medical doctors claimed that they were entirely satisfied with their present location as a place to live. The same proportion said that they were generally satisfied; the remainder were about evenly divided between the next two categories with none indicating complete dissatisfaction. The proportions were not much changed when age and size of place were controlled. It may be noted that more expressed some degree of dissatisfaction with the area as a place to live than as a place to work.

Most of the reasons given for being less than entirely satisfied with their present location centered around limitations of facilities in smaller centers such as lack of cultural and social activities, lack of educational facilities, and inadequate living conditions. Other reasons not directly tied to "small town" limitations were given; for example, climate and distance from parents and relatives. Lack of personal privacy and attitudes of local people probably could be attributed to "small town" ways.

Doctors were asked to give advantages, as they saw them, of living in a small town. The advantage most often cited was closer personal ties with the people; and, it was often mentioned in this connection that the people in smaller towns were more friendly and dependable. Half of the medical doctors gave a response of this kind. It indicates, in part, their rationale for living in a small town.

Other advantages listed in order of number of respondents were: More freedom of time, less traffic and confusion, outdoor recreational opportunities, financial advantage, schools and other institutions equal to those in the cities. There were other scattered responses.

Rural medical doctors were also asked to indicate the disadvantages of living in a small town. The responses were similar to those listed previously as "disadvantages of living in this place." About one-fourth indicated that there was no disadvantage to living in a small town. The very closeness of personal relations given by so many as an advantage may be regarded as a disadvantage by others. For example, "Gossip is more prominent--your business is everybody's;" or, "No privacy, everyone knows what you're doing." The most common disadvantage listed was a lack of cultural and social activities. This was followed in order by lack of personal privacy, lack of educational facilities, inordinate demands on time, inadequate medical facilities, lack of recreation and entertainment, financial disadvantage, lack of prestige, attitudes of local people, and lack of shopping facilities.

Osteopathic Doctors. More than half of the osteopathic doctors indicated that they were entirely satisfied with living in their present location. An additional 42 percent said that they were generally satisfied. Only 6 percent were less than generally satisfied. Younger osteopaths and those in smaller places were less likely to be entirely satisfied.

Reasons for lack of satisfaction were similar to those given by medical doctors with lack of cultural and social activities ranking highest.

The advantages and disadvantages given for living in a small town were also similar to those cited by medical doctors. An even larger proportion of the osteopathic doctors than of the medical doctors gave "closer personal ties with people" as an advantage.

Comparison of Rural Medical Doctors and Osteopathic Doctors. There were no significant differences in the responses by the two types of physicians on the 5-point satisfaction scale when they were considered as a whole or when divided by age of physicians and by size of place of practice. As indicated before, the reasons for dissatisfaction, and advantages and disadvantages of living in a small town were also similar.

Metropolitan General Practitioners. Fifty-five percent of the metropolitan general practitioners indicated "entire satisfaction" with their present location as a place to live. The remainder indicated "general satisfaction." None checked a category lower than this.

Comparison of Rural Medical Doctors and Metropolitan General Practitioners. There were no significant differences in proportions of those who were entirely satisfied with their location as a place to live and those who were not entirely satisfied. This did not change when age was controlled.

Metropolitan Specialists. Forty percent of the metropolitan specialists reported being entirely satisfied with their present location as a place to live; 51 percent were generally satisfied and 9 percent were in low categories.

Comparison of Rural Medical Doctors and Metropolitan Specialists. Differences in satisfaction with present location as a place to live were not large enough to be significant for the two types of physicians. When age was controlled, the differences continued to lack significance.

SUMMARY OF CHI SQUARE ANALYSES FOR ORIENTATION TO THE COMMUNITY (continued)

	X^2	d.f.	signif.[1]
Rural Medical Doctors and Rural Osteopathic Doctors			
Number of Formal Non-Health Organizations	4.0	2	-
Under 55 Years	4.1	2	-
55 Years and Over	1.0	2	-
Under 2,500 Population	3.4	2	-
2,500 Population and Over	3.2	2	-
Participation in Formal Non-Health Organizations	19.2	5	**
Under 55 Years	15.8	4	**
55 Years and Over	6.4	4	-
Under 2,500 Population	15.1	4	**
2,500 Population and Over	22.2	4	**
Number of Informal Group Membership	5.3	4	-
Under 55 Years	1.5	4	-
55 Years and Over	1.9	2	-
Under 2,500 Population	6.1	3	-
2,500 Population and Over	4.6	3	-
Rural Medical Doctors and Metropolitan General Practitioners			
Number of Formal Non-Health Organizations	12.3	2	**
Under 55 Years	11.1	1	**
55 Years and Over	2.3	1	-
Participation in Formal Non-Health Organizations	8.8	2	*
Under 55 Years	6.7	2	*
55 Years and Over	2.3	1	-
Number of Informal Group Memberships	4.9	2	-
Under 55 Years	9.3	2	**
55 Years and Over	0.1	2	-
Rural Medical Doctors and Metropolitan Specialists			
Number of Formal Non-Health Organizations	14.3	2	**
Under 55 Years	6.6	1	**
55 Years and Over	8.8	1	**
Participation in Formal Non-Health Organizations	16.4	2	**
Under 55 Years	8.1	2	*
55 Years and Over	6.4	1	*
Number of Informal Group Membership	2.0	2	-
Under 55 Years	2.3	2	-
55 Years and Over	0.9	2	-

SUMMARY OF CHI SQUARE ANALYSES FOR ORIENTATION TO THE COMMUNITY (continued)

	X^2	d.f.	signif.[1]
Rural Medical Doctors and Rural Osteopathic Doctors			
Mayor and/or Council Member	3.5	1	-
Under 55 Years	3.2	1	-
55 Years and Over	0.9	1	-
Under 2,500 Population	3.3	1	-
2,500 Population and Over	0.0	1	-
School Board Membership	0.0	1	-
Under 55 Years	0.4	1	-
55 Years and Over	0.6	1	-
Under 2,500 Population	0.0	1	-
2,500 Population and Over	0.1	1	-
Rural Medical Doctors and Metropolitan General Practitioners			
Mayor and/or Council Member	5.5	1	*
Under 55 Years		(Not enough cases for X^2 test)	
55 Years and Over		(Not enough cases for X^2 test)	
School Board Membership	15.9	1	**
Under 55 Years	6.8	1	**
55 Years and Over	9.5	1	**
Rural Medical Doctors and Metropolitan Specialists			
Mayor and/or Council Member	7.4	1	**
Under 55 Years		(Not enough cases for X^2 test)	
55 Years and Over		(Not enough cases for X^2 test)	
School Board Membership	15.9	1	**
Under 55 Years	8.7	1	**
55 Years and Over	6.2	1	*
Rural Medical Doctors and Rural Osteopathic Doctors			
Community Residence of First Friendship Choice	0.4	1	-
Under 55 Years	2.9	1	-
55 Years and Over	0.0	1	-
Under 2,500 Population	0.0	1	-
2,500 Population and Over	0.0	1	-
Community Residence of Second Friendship Choice	0.0	1	-
Under 55 Years	1.3	1	-
55 Years and Over	0.0	1	-

SUMMARY OF CHI SQUARE ANALYSES FOR ORIENTATION TO THE COMMUNITY (continued)

	X^2	d.f.	signif.[1]
Under 2,500 Population	2.2	1	-
2,500 Population and Over	0.7	1	-
Community Residence of Third Friendship Choice	1.4	1	-
Under 55 Years	1.1	1	-
55 Years and Over	1.1	1	-
Under 2,500 Population	0.3	1	-
2,500 Population and Over	2.5	1	-
Occupation of First Friendship Choice	0.3	2	-
Occupation of Second Friendship Choice	4.1	2	-
Occupation of Third Friendship Choice	1.4	2	-
Medical Connected Occupation of First Friendship Choice	3.6	1	-
Medical Connected Occupation of Third Friendship Choice	0.1	1	-
Rural Medical Doctors and Metropolitan General Practitioners			
Community Residence of First Friendship Choice	7.5	1	**
Under 55 Years	4.0	1	*
55 Years and Over	4.2	1	*
Community Residence of Second Friendship Choice	9.4	1	**
Under 55 Years	5.3	1	*
55 Years and Over	4.2	1	*
Community Residence of Third Friendship Choices	9.8	1	**
Under 55 Years	4.4	1	*
55 Years and Over	6.2	1	*
Occupation of First Friendship Choice	14.6	2	**
Occupation of Second Friendship Choice	10.2	2	**
Occupation of Third Friendship Choice	12.6	2	**
Medical Connected Occupation of First Friendship Choice	12.9	1	**
Medical Connected Occupation of Second Friendship Choice	0.1	1	-
Medical Connected Occupation of Third Friendship Choice	0.2	1	-
Rural Medical Doctors and Metropolitan Specialists			
Community Residence of First Friendship Choice	0.2	1	-

SUMMARY OF CHI SQUARE ANALYSES FOR ORIENTATION TO THE COMMUNITY (continued)

Under 55 Years	0.3	1	-
55 Years and Over		(Not enough cases for X^2 test)	
Community Residence of Second Friendship Choice	4.0	1	*
Under 55 Years	3.3	1	-
55 Years and Over	1.0	1	-
Community Residence of Third Friendship Choice	5.6	1	*
Under 55 Years	2.8	1	-
55 Years and Over		(Not enough cases for X^2 test)	
Occupation of First Friendship Choice	21.1	2	**
Occupation of Second Friendship Choice	2.5	2	-
Occupation of Third Friendship Choice	0.4	2	-
Medical Connected Occupation of First Friendship Choice	42.2	1	**
Medical Connected Occupation of Second Friendship Choice	4.9	1	*
Medical Connected Occupation of Third Friendship Choice	5.2	1	*
Rural Medical Doctors and Rural Osteopathic Doctors			
Satisfaction with Living in this Place	0.6	1	-
Under 55 Years	0.1	1	-
55 Years and Over	2.8	1	-
Under 2,500 Population	0.6	1	-
2,500 Population and Over	1.3	1	-
Rural Medical Doctors and Metropolitan General Practitioners			
Satisfaction with Living in this Place	1.2	1	-
Under 55 Years	2.1	1	-
55 Years and Over	0.0	1	-
Rural Medical Doctors and Metropolitan Specialists			
Satisfaction with Living in this Place	0.3	1	-
Under 55 Years	0.0	1	-
55 Years and Over	0.2	1	-

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[1] (-) = Not significant at the 5 percent level.
* = Significant at the 5 percent level.
** = Significant at the 1 percent level.

Summary and Conclusions. The weight of the information presented in this chapter supports the idea that rural physicians are more deeply involved in community life than is true of metropolitan doctors. This was manifested in membership and participation in voluntary organizations, informal groups, local government, and friendship patterns. With few exceptions, it was not possible to distinguish the manner in which medical doctors and osteopathic doctors participated in community affairs. Where differences did occur, it appeared that osteopathic physicians were more active.

Part of the explanation [illegible] greater activity of rural physicians lies in greater opportunity. The likelihood of any one individual being elected to the school board of metropolitan Kansas City is small; but in places under 10,000 physicians occupy a place of learning, prestige, and visibility matched by few others. In addition, the position of "town doctor" may have traditional community obligations, such as school board membership. In any event, it seems unlikely that incumbents of many other positions are so quickly accepted into the higher levels of community activities.

In the small town, furthermore, it is not likely that the physician can concentrate his friendship associations to the community and to other doctors at the same time. The high number of friendship choices among proprietors reflects the character of the small town elite.

CHAPTER IX

Summary and Conclusions

We set out to examine some of the background factors that are associated with the place of practice of physicians and to indicate something of the relationship of physicians to their community of practice. These goals have been kept clearly in the forefront of the analysis, and we have worked closely with the data.

The area, as far as we could determine, was largely unexplored along the lines that we proposed to study. And yet this type of information seems needed in order to assess the manner in which physicians are distributed geographically. Because of the unexplored nature of the problem, a rather gross approach was taken. We wanted to know many things about the background and community orientation of physicians.

The profession was viewed as a functional whole from which segments were sampled. The focus was on the rural medical doctors and they were compared with osteopathic doctors in the same area and samples of metropolitan general practitioners and metropolitan specialists. We have attempted to present data on two levels: (1) Descriptions of the backgrounds and community orientations of the 4 resident-types of physicians, (2) a comparison of the rural medical doctors with the other resident-types of physicians.

The fathers of medical doctors in the 20-county rural area were largely in one of three occupational categories--professional, farm operators, or proprietors and managers. The fathers in professional occupations were concentrated in the medical professions with a substantial proportion being physicians. Those in the proprietor, manager category were predominantly small town businessmen. Together with larger farmers, these three categories constitute the high status occupations in rural areas; it may be further observed that these are largely independent entrepreneurial occupations. In this sense, the rural medical doctor in private practice is not making a sharp break with family background.

The parental occupations of physicians of the several resident-types were quite similar. The metropolitan physicians, especially those in general practice, were fairly well represented by fathers who were farmers. This diminished somewhat among younger doctors. While we note that upper status occupations were well represented among fathers of physicians, the background of doctors was by no means confined to these occupational groups. About one-third of the metropolitan physicians came from lower white collar and non-farm blue collar occupational backgrounds. These same categories accounted for about one-fourth of the osteopaths and 14 percent of the rural medical doctors. The lower proportions among rural physicians are more than made up for by the high proportions with farm backgrounds, although it has not been possible to clearly assign status position to that category because of its wide range. It is interesting that more metropolitan specialists were recruited from the lower white collar and the non-farm blue collar occupational background than any of the other resident-types. This is at least slight evidence of rational selection in an occupation of high technical expertness. Weber observed that in a bureaucratic setting, ". . . the certificate of education becomes what the test of ancestors has been in the past."[32] In this sense, there is some evidence that the rural medical doctors are more traditional with backgrounds in the medical professions and other higher status occupations. This difference is not contrary to the settings of these physicians with regard to the gesellschaft quality of metropolitan society and the more gemeinschaft quality of rural settings.

A major concept in the descriptions and analysis of the locational experience of physicians was the place history. This consisted of identifying locations in terms of size and with reference to state and hometown for selected events. The events were divided into the early years (birth, entered school, graduated from grade school, graduated from high school); the training years (principal undergraduate college, professional school, internship); the career years (first private practice, present practice).

It is clear that there was a difference in the sizes of the locations of events in the early years for doctors practicing in the rural areas and those practicing in the metropolitan areas. The difference was in the expected direction; that is, rural doctors were more likely to have had early rural experiences. There was no differences in the population of early locations of rural medical doctors and rural osteopathic doctors practicing in the same area.

It is also clear that the medical doctors (both rural and metropolitan) were predominantly local with reference to state and that a substantial proportion had youth experience in the place where they were practicing. No differences were found among the resident-types of medical doctors in youth locations with reference to state or "hometown." There were differences between rural medical doctors and osteopathic doctors practicing in the same area with rural medical doctors being more local both in terms of state and town.

The training years, of necessity, were spent largely away from the environs of the places of rural practice. However, undergraduate schools could be attended in the general area, and liberal arts colleges in non-metropolitan areas of the state provided undergraduate training for a substantial number of the medical doctors practicing in the 20-county area.

Rural medical doctors were likely to continue their localism with reference to state through the time of undergraduate college. Metropolitan doctors were only slightly (and not significantly) less local with reference to attending undergraduate school within the state, but if not in the state they were somewhat more likely to have attended in a non-adjacent state.

About half of each resident-type of medical doctors attended medical school in the home state. Rural medical doctors were more likely to have received training in St. Louis schools; metropolitan physicians at the University of Kansas Medical School.

Internship brought the rural medical doctors and metropolitan general practitioners back to the state (the metropolitan doctors back to their present place of practice). The metropolitan specialists were more likely to intern in states non-adjacent to Missouri.

The osteopathic doctors practicing in the rural area were not predominantly local with reference to state until the time they entered professional school. Then virtually all of those practicing in the 20-county area attended one of the two Missouri osteopathic schools, and most of those who interned did so within the state.

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[32] Max Weber, From Max Weber: Essays in Sociology translated by H. H. Gerth and C. Wright Mills, Oxford University Press, New York 1946, p. 241.

In tracing the place history through the career years, it was intended to identify each place of practice in terms of size, state, and relationship to earlier locations. As it turned out, this was accomplished to a large extent by identifying two career locations, place of first practice and place of present practice.

Rural medical doctors were stable in their career locations with the majority being in their first place of practice. But the metropolitan doctors were even more stable (a difference which was statistically significant). The former observation is not vitiated by the latter. The important fact it would seem is that locations of medical doctors are few. Location as a professional stepping-stone is not a very useful concept in that the route of upward professional mobility appears to be educational and institutional[33] rather than locational.[34] The physician who combines professional and geographical mobility appears to be more common among osteopathic doctors. Young osteopathic doctors often start out in very small places and the geographical mobility among them is fairly high. For osteopathic physicians, at least until recently, the education progression was not so clearly marked as for medical doctors and for them the locational stepping-stone hypothesis might be more applicable.

Reasons for locating in a place are obviously complex. They may be influenced by temporal situational factors (depression, war), or by idiosyncratic events ("I stopped between trains and liked the looks of the place"). However, certain patterns emerge. The most frequent reason given for locating where they did by physicians of each resident-type was that the place was their hometown and/or because of friendship or kinship ties. The osteopathic physicians were least likely of the four types to give this response, which is consistent with their locational origins. Metropolitan physicians were more likely than rural doctors to cite acquaintance with other physicians, many of whom were contacted during the training years.

Among rural physicians (both medical doctors and osteopathic doctors) those who had been in only one location were more likely than those who had been in two or more places to cite hometown and/or family and friends as a reason for coming to their present location, which is evidence of the "holding power" of personal influence. It has been demonstrated before that there was a relationship between early-years place history and career locations. Here it is shown that there is a conscious relationship.

As has been indicated, the stability of physicians was great; their intention to remain in their present location confirms the general immobility of the profession. The independence of the independent profession may not be manifest in terms of physical mobility in that the professional invests personal resources in developing his practice and his rewards derive from a circumscribed clientele.

Having followed physicians through their place histories from birth to present location, we examined their relationship to the community first as practicing professional and as citizen members. Again it was noted that personal influences were often mentioned as reasons for becoming a physician and for practicing in a rural area. Ease in getting started and interest in general practice were also reasons given by a number of physicians for practicing in a rural area.

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[33] hospital appointments.

[34] location within the metropolitan area may reflect professional status and physicians may move within the area for this reason but this was not explored.

The work situations of medical doctors practicing in the rural areas were indistinguishable from their general practitioner counterparts in the metropolitan areas on such gross indices as memberships on hospital staffs and working relationships with other physicians. Nor was the rural medical doctor's membership and participation in professional organizations much different from that of the general practitioner in the metropolitan area. This does not indicate that the work settings of rural and metropolitan general practitioners were identical, but it does indicate that they were within the same range. The differences doctors saw in rural and urban practice tended to reflect the perceived advantages of their own location. Thus, the rural doctors saw close personal contacts with the people as the principal difference in rural and urban practice; while, the metropolitan doctors more often mentioned the facilities and consultation opportunities of urban areas.

Rural practice, to be sure, reflects the qualities of rural society, which include fewer institutional resources and more primary relationships. It also reflects the changes in rural society which in general are toward greater similarity to urban ways. Therefore with the increased hospitals and other technology in rural areas there is a decline of the old country doctor type of practitioner.

The public and private lives of professionals are not easily separated and the relationship of the physician to his practice and community are not distinct. The rural doctors were more completely enmeshed in community affairs than were the metropolitan doctors in that they participated in more voluntary organizations and were more engaged in civic affairs. Further, the rural physicians were more likely to have friendship ties with persons outside the profession.

In terms of community participation, the medical and osteopathic doctors were very similar, leading to the conclusion that the two types of physicians related to the non-professional community in about the same way.

Appendix A

Tables (The first number in each table indicates the number of the chapter in which it is discussed).

APPENDIX TABLE 3.1 - OCCUPATIONS OF FATHERS OF RURAL MEDICAL DOCTORS BY AGE OF DOCTOR

	Age of Medical Doctor			
Father's Occupation	Under 45 (N=28)	45-54 (N=12)	55-64 (N=13)	65 and Over (N=18)
	Percent	Percent	Percent	Percent
Professional and Semi-professional	28.6	33.3	38.5	27.7
Farmers and Farm Managers	28.6	16.7	30.8	55.6
Proprietors and Managers	25.0	33.3	23.1	5.6
Clerical and Sales	7.1	8.3	---	---
Craftsmen, Operatives, Service, Laborers	10.7	8.3	7.7	11.2

APPENDIX TABLE 3.2 - OCCUPATION OF FATHERS OF RURAL MEDICAL DOCTORS BY SIZE OF PLACE OF PRACTICE

	Size of Place of Practice			
Father's Occupation	1-999 (N=11)	1000-2499 (N=19)	2500-4999 (N=23)	5000-9999 (N=18)
	Percent	Percent	Percent	Percent
Professional and Semi-professional	9.1	26.3	39.1	38.9
Farmers and Farm Managers	63.6	31.6	13.0	44.4
Proprietors and Managers	9.1	31.6	30.4	5.6
Clerical and Sales	---	---	4.4	11.1
Craftsmen, Operatives, Service, Laborers	18.2	10.5	13.0	---
Not Designated	---	---	---	---

APPENDIX TABLE 3.3 - MEDICAL CONNECTION OF FATHERS OF RURAL MEDICAL DOCTORS BY AGE OF DOCTOR

	Age of Medical Doctors			
Father's Medical Connection	Under 45 (N=28)	45-54 (N=12)	55-64 (N=13)	65 and Over (N=18)
	Percent	Percent	Percent	Percent
Medical Doctors	10.7	8.3	30.8	27.8
Other Medical Professions	10.7	16.6	7.7	---
In Some Medical Profession	21.4	24.9	38.5	27.8

APPENDIX TABLE 3.4 - OCCUPATION OF FATHERS OF OSTEOPATHIC DOCTORS BY AGE OF DOCTOR

	Age of Osteopathic Doctor			
Father's Occupation	Under 45 (N=30)	45-54 (N=23)	55-64 (N=18)	65 and Over (N=9)
	Percent	Percent	Percent	Percent
Professional and Semi-professional	16.6	30.4	5.6	22.2
Farmers and Farm Managers	26.7	21.7	61.1	66.7
Proprietors and Managers	13.3	26.1	22.2	---
Clerical and Sales	13.3	8.7	---	---
Craftsmen, Operatives, Service Laborers	26.7	13.0	11.1	11.1
Not Designated	3.3	---	---	---

APPENDIX TABLE 3.5 - OCCUPATION OF FATHERS OF OSTEOPATHIC DOCTORS BY SIZE OF PLACE OF PRACTICE

	Size of Place of Practice			
Father's Occupation	1-999 (N=32)	1000-2499 (N=16)	2500-4999 (N=19)	5000-9999 (N=13)
	Percent	Percent	Percent	Percent
Professional and Semi-professional	6.2	37.5	21.1	23.1
Farmers and Farm Managers	37.5	31.2	36.8	46.2
Proprietors and Managers	18.8	25.0	15.8	7.7
Clerical and Sales	15.6	---	5.3	---
Craftsmen, Operatives, Service Laborers	21.9	6.2	15.8	23.0
Not Designated	---	---	5.3	---

APPENDIX TABLE 3.6 - MEDICAL CONNECTION OF FATHERS OF OSTEOPATHIC DOCTORS BY AGE OF DOCTOR

	Age of Osteopathic Physicians			
Father's Medical Connection	Under 45 (N=30)	45-54 (N=23)	55-64 (N=18)	65 and Over (N=9)
	Percent	Percent	Percent	Percent
Physicians	6.6	21.7	5.5	11.1
Other Medical Professions	3.3	---	---	---
In Some Medical Profession	9.9	21.7	5.5	11.1

APPENDIX TABLE 3.7 - OCCUPATION OF FATHERS OF METROPOLITAN GENERAL PRACTITIONERS BY AGE OF DOCTOR

	Age of Metropolitan General Practitioners			
Father's Occupation	Under 45 (N=18)	45-54 (N=8)	55-64 (N=8)	65 and Over (N=13)
	Percent	Percent	Percent	Percent
Professional and Semi-professional	22.2	25.0	25.0	15.4
Farmers and Farm Managers	11.1	25.0	37.5	46.2
Proprietors and Managers	22.2	25.0	---	15.4
Clerical and Sales	22.2	12.5	25.0	---
Craftsmen, Operatives, Service, Laborers	16.8	12.5	---	15.4
Not Designated	5.6	---	12.5	7.6

APPENDIX TABLE 3.8 - MEDICAL CONNECTION OF FATHERS OF METROPOLITAN GENERAL PRACTITIONERS BY AGE OF DOCTOR

	Age of Metropolitan General Practitioners			
Father's Medical Connection	Under 45 (N=18)	45-54 (N=8)	55-64 (N=8)	65 and Over (N=13)
	Percent	Percent	Percent	Percent
Medical Doctors	---	25.0	12.5	15.4
Other Medical Professions	5.6	---	12.5	---
In Some Medical Profession	5.6	25.0	25.0	15.4

APPENDIX TABLE 3.9 - FATHER'S OCCUPATION OF PRACTICING METROPOLITAN SPECIALISTS BY AGE OF DOCTOR

	Age of Metropolitan Specialists			
Father's Occupation	-45 (N=19)	45-54 (N=15)	55-64 (N=8)	65 and Over (N=5)
	Percent	Percent	Percent	Percent
Professional and Semi-professional	21.0	26.7	50.0	20.0
Farmers and Farm Managers	5.3	33.3	12.5	20.0
Proprietors and Managers	36.8	6.7	12.5	---
Clerical and Sales	5.3	20.0	12.5	20.0
Craftsmen, Operatives, Service, Laborers	26.3	13.4	12.5	40.0
Not Designated	5.3	---	---	---

APPENDIX TABLE 3.10 - MEDICAL CONNECTION OF FATHERS OF METROPOLITAN SPECIALISTS BY AGE OF DOCTOR

	Age of Metropolitan Specialists			
Father's Medical Connection	Under 45 (N=19)	45-54 (N=15)	55-64 (N=8)	65 and Over (N=5)
	Percent	Percent	Percent	Percent
Medical Doctors	15.8	13.3	50.0	---
Other Medical Professions	---	---	---	---
In Some Medical Profession	15.8	13.3	50.0	---

APPENDIX TABLE 4.1 - SIZE OF PLACE OF BIRTH, RURAL MEDICAL DOCTORS BY AGE

	Under 45 (N=28)	45-54 (N=12)	55-64 (N=13)	65 + (N=18)
	Percent	Percent	Percent	Percent
Farm or Open Country	25.0	16.7	30.8	61.1
Under 1,000	14.2	33.3	30.8	22.2
1,000 - 2,499	21.4	8.3	15.4	11.1
2,500 - 9,999	17.9	--	--	5.5
10,000 +	21.4	41.7	23.1	--

APPENDIX TABLE 4.2 - SIZE OF PLACE OF GRADUATION FROM HIGH SCHOOL, RURAL MEDICAL DOCTORS BY AGE

Size of Place Graduated H.S.	under 45 (N=28)	45-54 (N=12)	55-64 (N=13)	65 + (N=18)
	Percent	Percent	Percent	Percent
Farm or Open Country	14.3	16.7	15.4	27.8
Under 1,000	10.7	25.0	7.7	5.6
1,000 - 2,499	21.4	16.7	15.4	11.1
2,500 - 9,999	35.7	25.0	30.8	11.1
10,000 +	17.8	16.7	23.1	--
Not Determined	--	--	7.7	44.4

APPENDIX TABLE 4.3 - PLACE OF BIRTH WITH REFERENCE TO STATE, RURAL MEDICAL DOCTORS BY AGE

	Under 45 (N=28)	45-54 (N=12)	55-64 (N=13)	65 + (N=18)
	Percent	Percent	Percent	Percent
Missouri	64.2	75.0	61.5	72.2
Adjacent to Missouri	14.3	16.7	23.1	27.8
Non-adjacent to Missouri	21.4	8.3	7.7	--
Not in U.S.	--	--	7.7	--

APPENDIX TABLE 4.4 - PLACE OF GRADUATION FROM HIGH SCHOOL WITH REFERENCE TO STATE, RURAL MEDICAL DOCTORS BY AGE

	Under 45 (N=28)	45-54 (N=12)	55-64 (N=13)	65 + (N=18)
	Percent	Percent	Percent	Percent
Missouri	71.4	83.3	69.2	44.4
Adjacent to Missouri	7.1	16.7	15.4	16.7
Non-adjacent to Missouri	21.4	--	--	--
Not in U.S.	--	--	7.7	--
Not Determined	--	--	7.7	38.9

APPENDIX TABLE 4.5 - SIZE OF PLACE OF BIRTH, OSTEOPATHIC DOCTORS BY AGE

	Under 45 (N=30)	45-54 (N=23)	55-64 (N=18)	65 + (N=9)
	Percent	Percent	Percent	Percent
Farm or Open Country	16.7	13.0	44.4	44.4
Under 1,000	16.7	43.5	27.8	44.4
1,000 - 2,499	13.3	4.4	--	--
2,500 - 9,999	23.3	13.0	11.1	11.1
10,000 +	30.0	26.1	16.7	--

APPENDIX TABLE 4.6 - SIZE OF PLACE OF GRADUATION FROM HIGH SCHOOL, OSTEOPATHIC DOCTORS BY AGE

Size of Place Graduated H.S.	Under 45 (N=30)	45-54 (N=23)	55-64 (N=18)	65 + (N=9)
	Percent	Percent	Percent	Percent
Farm or Open Country	13.3	13.0	27.8	11.1
Under 1,000	16.6	21.7	11.1	11.1
1,000 - 2,499	6.7	13.0	5.6	11.1
2,500 - 9,999	20.0	8.7	16.7	33.3
10,000 +	33.3	43.5	27.8	--
Not Determined	10.0	--	11.1	33.3

APPENDIX TABLE 4.7 - PLACE OF BIRTH WITH REFERENCE TO STATE, OSTEOPATHIC DOCTORS BY AGE

	Under 45 (N=30)	45-54 (N=23)	55-64 (N=18)	65 + (N=9)
	Percent	Percent	Percent	Percent
Missouri	43.3	26.1	22.2	66.7
Adjacent to Missouri	30.0	43.5	22.2	33.3
Non-Adjacent to Missouri	26.7	30.4	55.6	--

APPENDIX TABLE 4.8 - PLACE OF GRADUATION FROM HIGH SCHOOL WITH REFERENCE TO STATE, OSTEOPATHIC DOCTORS BY AGE

	Under 45 (N=30)	45-54 (N=23)	55-64 (N=18)	65 + (N=9)
	Percent	Percent	Percent	Percent
Missouri	46.7	43.4	22.3	66.7
Adjacent to Missouri	13.3	26.1	11.1	22.2
Non-adjacent to Missouri	30.0	30.4	55.6	--
Not Determined	10.0	--	11.1	11.1

APPENDIX TABLE 4.9 - SIZE OF PLACE OF BIRTH OF METROPOLITAN GENERAL PRACTITIONERS BY AGE

	Under 45 (N=18)	45-54 (N=8)	55-64 (N=8)	65 + (N=13)
	Percent	Percent	Percent	Percent
Farm or Open Country	11.1	12.5	12.5	30.8
Under 2,500	16.7	25.0	37.5	15.4
2,500 - 9,999	22.2	12.5	37.5	7.7
10,000 - 99,999	16.6	12.5	---	15.4
100,000 +	33.3	37.5	12.5	23.1
Not in U.S.	--	--	--	7.7

APPENDIX TABLE 4.10 - SIZE OF PLACE OF GRADUATION FROM HIGH SCHOOL OF METROPOLITAN GENERAL PRACTITIONERS BY AGE

	Under 45 (N=18)	45-54 (N=8)	55-64 (N=8)	65 + (N=13)
	Percent	Percent	Percent	Percent
Farm or Open Country	16.6	12.5	--	7.7
Under 2,500	--	25.0	25.0	15.4
2,500 - 9,999	22.2	12.5	12.5	30.8
10,000 - 99,999	16.7	--	25.0	15.4
100,000 +	44.4	50.0	37.5	15.4
Not in U.S.	--	--	--	7.7
Not Determined	--	--	--	7.7

APPENDIX TABLE 4.11 - PLACE OF BIRTH WITH REFERENCE TO STATE, METROPOLITAN GENERAL PRACTITIONERS, BY AGE

	Under 45 (N=18)	45-54 (N=8)	55-64 (N=8)	65 + (N=13)
	Percent	Percent	Percent	Percent
Missouri	38.8	62.5	25.0	46.1
Kansas	22.2	--	25.0	7.7
Adjacent to Missouri	11.1	12.5	12.5	23.1
Non-adjacent to Missouri	27.8	25.0	25.0	15.4
Not in U.S.	--	--	12.5	7.7

APPENDIX TABLE 4.12 - PLACE OF GRADUATION FROM HIGH SCHOOL WITH REFERENCE TO STATE, METROPOLITAN GENERAL PRACTITIONERS BY AGE

	Under 45 (N=18)	45-54 (N=8)	55-64 (N=8)	65 + (N=13)
	Percent	Percent	Percent	Percent
Missouri	44.4	62.5	50.0	46.1
Kansas	16.6	--	12.5	7.7
Adjacent to Missouri	11.1	12.5	12.5	15.4
Non-adjacent to Missouri	27.8	25.0	25.0	7.7
Not in U.S.	--	--	--	7.7
Not Determined	--	--	--	15.4

APPENDIX TABLE 4.13 - SIZE OF PLACE OF BIRTH OF METROPOLITAN SPECIALISTS BY AGE

	Under 45 (N=19)	45-54 (N=15)	55-64 (N=8)	65 + (N=5)
	Percent	Percent	Percent	Percent
Farm or Open Country	5.3	13.3	--	20.0
Under 2,500	5.3	20.1	12.5	--
2,500 - 9,999	21.0	26.7	12.5	20.0
10,000 - 99,999	10.6	--	--	20.0
100,000 +	52.6	26.7	75.0	20.0
Not in U.S.	5.3	13.3	--	--
Not Determined	--	--	--	20.0

APPENDIX TABLE 4.14 - SIZE OF PLACE OF GRADUATION FROM HIGH SCHOOL OF METROPOLITAN SPECIALISTS BY AGE

	Under 45 (N=19)	45-54 (N=15)	55-64 (N=8)	65 + (N=5)
	Percent	Percent	Percent	Percent
Farm or Open Country	--	6.7	--	20.0
Under 2,500	10.6	20.0	12.5	--
2,500 - 9,999	15.8	20.0	--	20.0
10,000 - 99,999	10.6	20.0	--	20.0
100,000 +	57.8	26.7	87.5	40.0
Not in U.S.	--	6.7	--	--
Not Determined	5.3	--	--	--

APPENDIX TABLE 4.15 - PLACE OF BIRTH WITH REFERENCE TO STATE, METROPOLITAN SPECIALISTS BY AGE

	Under 45 (N=19)	45-54 (N=15)	55-64 (N=8)	65 + (N=5)
	Percent	Percent	Percent	Percent
Missouri	36.8	40.0	75.0	20.0
Kansas	21.1	33.3	--	20.0
Adjacent to Missouri	10.5	--	--	20.0
Non-adjacent to Missouri	26.3	13.3	25.0	20.0
Not in U.S.	5.3	13.3	--	--
Not Determined	--	--	--	20.0

APPENDIX TABLE 4.16 - PLACE OF GRADUATION FROM HIGH SCHOOL WITH REFERENCE TO STATE, METROPOLITAN SPECIALISTS BY AGE

	Under 45 (N=19)	45-54 (N=15)	55-64 (N=8)	65 + (N=5)
	Percent	Percent	Percent	Percent
Missouri	42.1	46.7	87.5	40.0
Kansas	21.1	33.3	--	20.0
Adjacent to Missouri	5.3	--	--	20.0
Non-adjacent to Missouri	26.3	13.3	12.5	20.0
Not in U.S.	5.3	6.7	--	--
Not Determined	--	--	--	--

APPENDIX TABLE 6.1 - NUMBER OF PLACES OF PRIVATE PRACTICE OF RURAL MEDICAL DOCTORS BY AGE

Number of Places of Private Practice	Under 45		45-54		55-64		65 and Over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
1	24	85.7	6	50.0	8	61.5	5	27.8
2	4	14.3	5	41.7	4	30.8	7	38.9
3	---	---	1	8.3	1	7.7	4	22.2
4	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	1	5.6
6	---	---	---	---	---	---	1	5.6
7	---	---	---	---	---	---	---	---

APPENDIX TABLE 6.2 - SIZE OF PLACE OF FIRST PRACTICE OF RURAL MEDICAL DOCTORS BY AGE

Size of Place of First Practice	Under 45		45-54		55-64		65 and Over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Under 500	1	3.6	1	8.3	---	---	10	55.6
500 - 999	2	7.1	---	---	4	30.8	1	5.6
1,000 - 2,499	9	32.1	4	33.3	2	15.4	2	11.1
2,500 - 9,999	14	50.0	5	41.7	5	38.5	2	11.1
10,000 - 24,999	1	3.6	1	8.3	1	7.7	---	---
25,000 - 49,000	---	---	---	---	---	---	---	---
50,000 - 99,999	---	---	---	---	---	---	1	5.6
100,000 +	1	3.6	1	8.3	1	7.7	2	11.1
Not in U.S.	---	---	---	---	---	---	---	---

APPENDIX TABLE 6.3 - NUMBER OF PLACES OF PRIVATE PRACTICE OF OSTEOPATHIC DOCTORS BY AGE

Number of Places of Private Practice	Under 45		45-54		55-64		65 and Over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
1	13	43.3	9	39.1	6	33.3	3	33.3
2	7	23.3	8	34.8	5	27.8	3	33.3
3	4	13.3	3	13.0	5	27.8	1	11.1
4	5	16.7	1	4.4	2	11.1	1	11.1
5	---	---	1	4.4	---	---	1	11.1
6	1	3.3	1	4.4	---	---	---	---
7	---	---	---	---	---	---	---	---

APPENDIX TABLE 6.4 - SIZE OF PLACE OF FIRST PRACTICE OF OSTEOPATHIC DOCTORS BY AGE

Size of Place of First Practice	Under 45		45-54		55-64		65 and Over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Under 500	9	30.0	8	34.8	5	27.7	1	11.1
500 - 999	8	26.7	5	21.7	2	11.1	---	---
1,000 - 2,499	1	3.3	4	17.4	5	27.8	4	44.4
2,500 - 9,999	8	26.7	2	8.7	4	22.2	3	33.3
10,000 - 24,999	1	3.3	---	---	1	5.6	1	11.1
25,000 - 49,999	1	3.3	---	---	---	---	---	---
50,000 - 99,999	---	---	1	.4.3	---	---	---	---
100,000 +	2	6.7	2	8.7	1	5.6	---	---
Not in U.S.	---	---	1	4.3	---	---	---	---

APPENDIX TABLE 6.5 - NUMBER OF PLACES OF PRIVATE PRACTICE OF METROPOLITAN GENERAL PRACTITIONERS BY AGE

Number of Places of Private Practice	Under 45		45-54		55-64		65 and Over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
1	15	83.3	8	100.0	6	75.0	11	84.6
2	3	16.6	---	---	---	---	1	7.6
3	---	---	---	---	1	12.5	---	---
4	---	---	---	---	1	12.5	1	7.6
5	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---

APPENDIX TABLE 6.6 - SIZE OF PLACE OF FIRST PRACTICE OF METROPOLITAN GENERAL PRACTITIONERS BY AGE

Size of Place of First Practice	Under 45		45-54		55-64		65 and Over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
-500	1	5.6	---	---	---	---	---	---
500 - 999	---	---	---	---	---	---	---	---
1,000 - 2,499	1	5.6	---	---	---	---	---	---
2,500 - 9,999	3	16.6	---	---	---	---	---	---
10,000 - 24,999	---	---	---	---	---	---	---	---
25,000 - 49,999	---	---	---	---	---	---	---	---
50,000 - 99,999	---	---	---	---	---	---	---	---
100,000 +	13	72.2	8	100.0	6	75.0	13	100.0
Not in U.S.	---	---	---	---	---	---	---	---
No Population Available	---	---	---	---	2	25.0	---	---

APPENDIX TABLE 6.7 - SIZE OF PLACE OF FIRST PRACTICE OF METROPOLITAN SPECIALISTS BY AGE

Size of Place of First Practice	Under 45		45-54		55-64		65 and Over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
-500	---	---	---	---	---	---	---	---
500 - 999	1	5.3	---	---	---	---	---	---
1,000 - 2,499	2	10.5	---	---	---	---	---	---
2,500 - 9,999	2	10.5	1	6.7	---	---	---	---
10,000 - 24,999	---	---	---	---	---	---	---	---
25,000 - 49,999	---	---	---	---	---	---	---	---
50,000 - 99,999	---	---	---	---	---	---	---	---
100,000 +	14	73.7	13	86.7	8	100.0	4	80.0
Not in U.S.	---	---	---	---	---	---	---	---
No Population Available	---	---	1	6.7	---	---	1	20.0

APPENDIX TABLE 6.8 - NUMBER OF PLACES OF PRIVATE PRACTICE OF METROPOLITAN SPECIALISTS BY AGE

Number of Places of Private Practice	Under 45		45-54		55-64		65 and Over	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
1	14	73.7	13	86.7	8	100.0	4	80.0
2	2	10.5	2	13.3	---	---	---	---
3	1	5.3	---	---	---	---	1	20.0
4	2	10.5	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---

APPENDIX TABLE 7.1 - NUMBER OF PROFESSIONAL ORGANIZATIONS TO WHICH RURAL MEDICAL DOCTORS BELONG

Number of Organizations	Number of Physicians	Percent of Physicians
None	6	8.5
1 - 3	28	39.4
4	22	31.0
5 and Over	15	21.1

APPENDIX TABLE 7.2 - PROFESSIONAL PARTICIPATION SCORES OF RURAL MEDICAL DOCTORS

Score	Number of Physicians	Percent of Physicians
0	6	8.5
1 - 3	6	8.5
4 - 6	24	33.8
7 - 9	23	32.4
10 - 12	7	9.9
13 and Over	5	7.0

APPENDIX TABLE 7.3 - NUMBER OF PROFESSIONAL ORGANIZATIONS TO WHICH OSTEOPATHIC DOCTORS BELONG

Number of Organizations	Number of Physicians	Percent of Physicians
None	7	8.9
1 - 3	50	63.2
4	11	13.9
5 and More	11	13.9
Not Determined	1	---

APPENDIX TABLE 7.4 - PROFESSIONAL PARTICIPATION SCORES OF OSTEOPATHIC DOCTORS

Score	Number of Physicians	Percent of Physicians
0	7	8.7
1 - 3	9	11.2
4 - 6	39	48.8
7 - 9	17	21.2
10 - 12	4	5.0
13 and Over	4	5.0

APPENDIX TABLE 7.5 - NUMBER OF PROFESSIONAL ORGANIZATIONS TO WHICH METROPOLITAN GENERAL PRACTITIONERS BELONG

Number of Organizations	Number of Physicians	Percent of Physicians
None	2	4.3
1 - 3	13	27.7
4	19	40.4
5 and Over	13	27.7

APPENDIX TABLE 7.6 - PROFESSIONAL PARTICIPATION SCORES OF METROPOLITAN GENERAL PRACTITIONERS

Professional Participation Score	Number of Physicians	Percent of Physicians
0	2	4.3
1 - 3	6	12.8
4 - 6	15	31.9
7 - 9	14	29.8
10 - 12	2	4.3
13 and Over	8	17.0

APPENDIX TABLE 7.7 - NUMBER OF PROFESSIONAL ORGANIZATIONS TO WHICH METROPOLITAN SPECIALISTS BELONG

Number of Organizations	Number of Physicians	Percent of Physicians
None	0	---
1 - 3	3	6.4
4	8	17.0
5 and Over	35	74.5
Not Determined	1	2.1

APPENDIX TABLE 7.8 - PROFESSIONAL ORGANIZATION PARTICIPATION SCORES OF METROPOLITAN SPECIALISTS

Professional Participation Score	Number of Physicians	Percent of Physicians
0	0	--
1 - 3	0	--
4 - 6	9	19.1
7 - 9	11	23.4
10 - 12	11	23.4
13 and Over	15	31.9
Not Determined	1	2.1

APPENDIX TABLE 8.1 - MEMBERSHIP IN NON-HEALTH FORMAL ORGANIZATIONS, RURAL MEDICAL DOCTORS

Number of Memberships	Number of Physicians	Percent of Physicians
0	4	5.6
1 - 3	21	29.6
4 - 6	35	49.3
7 - 9	9	12.6
10 and Over	2	2.8

APPENDIX TABLE 8.2 - PARTICIPATION SCORES IN NON-HEALTH FORMAL ORGANIZATIONS, RURAL MEDICAL DOCTORS

Participation Score	Number of Physicians	Percent of Physicians
0	4	5.6
1 - 3	11	15.5
4 - 6	8	11.3
7 - 9	24	33.8
10 - 12	12	16.9
13 - 15	8	11.3
16 and Over	4	5.6

APPENDIX TABLE 8.3 - MEMBERSHIP IN NON-HEALTH FORMAL ORGANIZATIONS, OSTEOPATHIC DOCTORS

Number of Memberships	Number of Physicians	Percent of Physicians
0	3	3.8
1 - 3	28	35.0
4 - 6	28	35.0
7 - 9	16	20.0
10 and Over	5	6.2

APPENDIX TABLE 8.4 - PARTICIPATION SCORES IN NON-HEALTH FORMAL ORGANIZATIONS, OSTEOPATHIC DOCTORS

Participation Score	Number of Physicians	Percent of Physicians
0	3	3.8
1 - 3	10	12.5
4 - 6	19	23.7
7 - 9	10	12.5
10 - 12	10	12.5
13 - 15	10	12.5
16 and Over	18	22.5

APPENDIX TABLE 8.5 - MEMBERSHIP IN NON-HEALTH FORMAL ORGANIZATIONS, METROPOLITAN GENERAL PRACTITIONERS

Number of Memberships	Number of Physicians	Percent of Physicians
0	4	8.5
1 - 3	28	59.6
4 - 6	12	25.5
7 - 9	3	6.4
10 and Over	--	--

APPENDIX TABLE 8.6 - PARTICIPATION SCORES IN NON-HEALTH FORMAL ORGANIZATIONS, METROPOLITAN GENERAL PRACTITIONERS

Participation Score	Number of Physicians	Percent of Physicians
0	4	8.5
1 - 3	12	25.5
4 - 6	12	25.5
7 - 9	9	19.1
10 - 12	6	12.8
13 - 15	2	4.3
16 and Over	2	4.3

APPENDIX TABLE 8.7 - MEMBERSHIP IN NON-HEALTH FORMAL ORGANIZATIONS, METROPOLITAN SPECIALISTS

Number of Memberships	Number of Physicians	Percent of Physicians
0	5	10.6
1 - 3	28	59.6
4 - 6	12	25.5
7 - 9	2	4.3
10 and Over	---	---

APPENDIX TABLE 8.8 - PARTICIPATION SCORES IN NON-HEALTH FORMAL ORGANIZATIONS, METROPOLITAN SPECIALISTS

Participation Scores	Number of Physicians	Percent of Physicians
0	5	10.6
1 - 3	7	14.9
4 - 6	19	40.4
7 - 9	11	23.4
10 - 12	3	6.4
13 - 15	2	4.3
16 and Over	---	---

APPENDIX TABLE 8.9 - PERCENTAGE DISTRIBUTION OF FRIENDS OF RURAL MEDICAL DOCTORS IN MEDICALLY-CONNECTED OCCUPATIONS

Medically-Connected Occupation	First Best Friend (N=66)	Second Best Friend (N=63)	Third Best Friend (N=61)
	Percent	Percent	Percent
Medical Doctor	16.7	20.6	24.6
Osteopathic Doctor	---	---	---
Dentist	3.0	6.3	---
Veterinarian	---	1.6	1.6
Pharmacist	---	---	1.6
Not Medically Connected	80.3	71.4	72.1

APPENDIX TABLE 8.10 - PERCENTAGE DISTRIBUTION OF FRIENDS OF OSTEOPATHIC DOCTORS IN MEDICALLY-CONNECTED OCCUPATIONS

	First Best Friend (N=69)	Second Best Friend (N=68)	Third Best Friend (N=67)
	Percent	Percent	Percent
Medical Doctor	5.8	2.9	4.5
Osteopathic Doctor	24.6	26.5	19.4
Dentist	1.4	2.9	---
Veterinarian	---	---	---
Pharmacist	1.4	---	7.5
Not Medically Connected	66.7	67.6	68.7

APPENDIX TABLE 8.11 - PERCENTAGE DISTRIBUTIONS OF FRIENDS OF METROPOLITAN GENERAL PRACTITIONERS IN MEDICALLY-CONNECTED OCCUPATIONS

	First Best Friend (N=43)	Second Best Friend (N=40)	Third Best Friend (N=39)
	Percent	Percent	Percent
Medical Doctor	46.5	30.0	33.3
Osteopathic Doctor	---	---	---
Dentist	4.7	5.0	2.6
Veterinarian	---	---	---
Pharmacist	4.7	2.5	2.6
Not Medically Connected	44.2	62.5	61.5

APPENDIX TABLE 8.12 - PERCENTAGE DISTRIBUTIONS OF FRIENDS OF METROPOLITAN SPECIALISTS IN MEDICALLY-CONNECTED OCCUPATIONS

	First Best Friend (N=45)	Second Best Friend (N=44)	Third Best Friend (N=44)
	Percent	Percent	Percent
Medical Doctor	80.0	45.5	45.5
Osteopathic Doctor	---	---	---
Dentist	---	2.3	2.3
Veterinarian	---	---	---
Pharmacist	---	---	---
Not Medically Connected	20.0	52.3	52.3

Appendix B

Interview Schedule.

Following is a list of questions included in the field schedule, minor changes were made for osteopathic doctors and a number of deletions were made in the questions asked the metropolitan doctors.

Spacing for answers has been reduced.

RURAL HEALTH PERSONNEL - 1961

Medical Doctor Schedule

A survey being conducted by the Department of Rural Sociology, University of Missouri.

ALL INFORMATION WILL BE HELD IN STRICT CONFIDENCE, NO NAMES OR SPECIFIC LOCATIONS WILL BE USED IN REPORTS OF THIS RESEARCH.

1. Background Information

1. * Name ________________________________
2. * Location: Town ________________; County ____________
3. * Age __________
4. Type of practice: full-time ________; part-time __________
   If part-time, reason ________________________________
   General ______________; Specialty (name) ____________
   If specialty, full-time ________; part-time ____________
   *If specialty, member of board Y / N
5. Father's Occupation ________________________________
6. Single ________; Married ________; Widowed ______
7. Wife's Education: less h.s. ____; h.s. ____; some college ____;
   college degree or more ____; spec. schooling (R.N.) ________
   Business school ________
8. Wife's field of education ________________________________
9. Did wife have a rural background Y / N ________________
10. Wife's father's occupation ________________________________
11. When did you decide to be a physician ______________________
12. Why did you decide to be a physician ______________________
13. When did you decide to practice in a rural area ______________
14. Why did you decide to practice in a rural area ______________

II. Place History

	Birthplace	Started school	Graduated 8 grade	Graduated 12 grade
1. Town (name)	______	______	______	______
State (name)	______	______	______	______
Farm(open country) or town	______	______	______	______

2. Size of high school graduating class: -25 ____; 25-49 ____; 50-74 ____
75-99 ______; +100 ______

3. How old were you when you were graduated from high school __________

College (undergraduate)

4. Name of principal undergraduate college attended ______________
location (town) ______________; state ____________;
did not attend college as undergraduate ____________

5. Age first entered college ___________

Medical School

6. Did you enter medical school directly from college Y / N
if no, what did you do in between ______________________

7. Medical school graduated from: *Name ______________________
*location (city) ____________________ state ____________;
age entered medical school ____________

8. Was medical school interrupted Y / N

9. Were you in the upper 1/3 of your medical school graduating class Y / N
if no, were you in the upper 2/3 of your medical school graduating class Y / N

10. *Age completed medical school ____________

Internship

11. Did you intern Y / N

12. Where did you intern: location (city) ___________; state _________

13. What type of internship institution ______________________________
If hospital: Name ____________________ size ____________

14. Age completed internship _____________

Military Service

15. Were you in military service Y / N

16. Were you a physician when in the service Y / N

17. Length of time in service ___________; Year discharged _________

18. Have there been other situations (after you got your medical degree) when you either took time out of practice for additional training, did not practice medicine, or had major non-medical responsibilities?
(time, place, situation) ____________________________________

Practice

19. First private practice: town __________________; state _________;
age entered first private practice _______________

20. Was your first practice in association with another physician Y / N
type of relationship ____________________

21. Why did you come to this particular place ____________________

22. Did you know anyone in your first place of practice before you dedided to locate there Y / N ; If yes, indicate who and influence ________
Probe: Did you have any relatives in this place ____________________

23. Did the community contact you Y /N ; If yes, how ____________________

(if 1st practice is present practice go to item II - 29)

24. List all subsequent changes of location. Do not include military service.
(attach additional sheet if needed)

Place (town, state)	Age when moved to:	Reason for moving from previous place	Reason for choosing new place

25. Present location: *town ____________________; Age came here __________

26. Why did you come to this particular place ____________________

27. Did you know anyone in this place before you decided to locate here Y / N
If yes, indicate who and influence ____________________
Probe: Did you have any relatives in this place ____________________

28. Did the community contact you Y / N If yes, how ____________________

29. Do you expect to remain here: almost sure to stay _____, probably will stay _____, uncertain ______, may move _____, almost certainly will move _____.

III. The Work

1. What is your best estimate of the average number of hours that you work a week ____________________

2. Do people make unreasonable demands on you as a doctor Y / N
If yes, in what way ____________________

3. I am going to read four statements of ways people might regard physicians and I want you to rank them in order according to the way people actually regard the doctor in your experience.

Rank (1. is most common)

______ They regard the doctor with awe as a worker of miracles
______ They see the doctor as a service and come around only when sick
______ They regard the doctor with suspicion
______ They see the doctor as a friend and adviser in times of trouble

4. Do people consult you regularly on family matters other than health _Y / N_
   Would you encourage them to do so _Y / N_ Comment ________________
5. Are there differences in what people expect of a doctor _Y / N_
   In what way ____
6. Which of the following categories would best describe the way you feel about the work situation here.
   - ______ entirely satisfied
   - ______ generally satisfied
   - ______ not satisfied but not really dissatisfied
   - ______ generally dissatisfied
   - ______ entirely dissatisfied
7. If not entirely satisfied with the work situation what are the reasons for dissatisfaction? ____________________________________
8. What do you see as the main difference in practicing in a rural area and in the city ____

IV. Relationship with Other Physicians

1.* Are there other medical doctors in this town _Y / N_

2.* Are there other medical doctors in this county _Y / N_

3. Do you have formal working relationships with another doctor (such as a partnership) _Y / N_ type of arrangement ____________________
4. How often do you have (formal and informal) contacts with other medical doctors in your work?
   - _______ seldom
   - _______ several a month
   - _______ about once a week
   - _______ several times a week
   - _______ almost daily
5. Where do you get most information about new drugs
   1) __________________________________
   2) __________________________________
   3) __________________________________
6. Are you on the staff of a hospital(s) _Y / N_ How far is the hospital ____miles
7. Are you in contact in any way with a medical school _Y / N_ Name of school __________________________ type of contact ____________________

8. Have you attended any professional educational sessions at a medical school in the last 3 years _Y / N_ If yes, what was the last one _____

9. Is there a serious shortage of doctors in this area _Y / N_ comment ____

10. Professional Organizations

Organization Member (list)	Have you attended meeting during past year		Committee or board this year		Officer this year		Officer any previous year	
	Yes	No	Yes	No	Yes	No	Yes	No

11. Voluntary Health Organizations
(participation in the program)

Organization Member (list)	Have you attended meeting during past year		Committee or board this year		Officer this year	
	Yes	No	Yes	No	Yes	No

12. Do you belong to the state board of any of these organizations (Reference to 11) _Y / N_

Have you ever been a state officer in any of these organizations _Y / N_

Indicate office(s) held ______________________________

V. Community Orientation

1. Think of your 3 closest friends(I am not going to ask you who they are, but I want you to have 3 definite names in mind). Now place them in order of best friend, second best, third best.

	1st	2nd	3rd
Does he/she live in community			
Distance (approx) person lives from you			
Occupation			
Approximate age			
How often do you get together			
How long have you known each other			

2. Which of the following categories would best describe the way you feel about living in this place

_______ entirely satisfied
_______ generally satisfied
_______ not satisfied but not really dissatisfied
_______ generally dissatisfied
_______ entirely dissatisfied

If not entirely satisfied, what are the reasons for dissatisfaction

____

3. Which of the following categories would best describe the way your wife feels about living in this place

_______ entirely satisfied
_______ generally satisfied
_______ not satisfied but not really dissatisfied
_______ generally dissatisfied
_______ entirely dissatisfied

If not entirely satisfied, what are the reasons for dissatisfaction

____

4. What organization do you belong to?

Organization Member (list)	Have you attended meeting during past year		Committee or board this year		Officer this year	
	Yes	No	Yes	No	Yes	No

5. Informal interest group (stable groups that have a more or less regular pattern of "getting together" for particular purposes).

Informal Group (name)	How often get together	Number of members	Are members from this town (Local or Extra-Local)

6. Local Government

City (village) government

Do you hold any city offices Y / N; name _______________
Are you on city committee or boards Y / N; name _______________
Were you ever mayor of the city Y / N
Were you ever on the council Y / N

School

Are you on the school board Y / N

Are you on any school committees Y / N ; name ____________

Were you ever on the school board Y / N

County

Do you hold a county office Y / N ; name ____________

Are you on a county committee Y / N; name ____________

Did you ever hold a county office Y / N ; name ____________

Other

Are you on hospital board of trustees Y / N

Are you on health department board of trustees Y / N

7. What advantages do you see in living in a small town? ____________
8. What disadvantages do you see in living in a small town? ____________
9. Under which of the following conditions would you seriously consider moving to a metropolitan area like Kansas City or St. Louis.

    ______ 1. If you could make the same amount of money

    ______ 2. If you could make substantially more money (for instance twice as much)

    ______ 3. Wouldn't move for any financial consideration within the realm of possibility

10. Under which of the following conditions would you seriously consider moving to a place about half the size of this one.

    ______ 1. If you could make the same amount of money

    ______ 2. If you could make substantially more money (for instance twice as much)

    ______ 3. Wouldn't move for any financial consideration within the realm of possibility.

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